

hp LaserJet 2400 series



i n v e n t

use



HP LaserJet 2400 series printer

User Guide



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HP customer care

Online services

For 24-hour access to information by using a modem or Internet connection

World Wide Web: Updated HP printer software, product and support information, and printer drivers in several languages can be obtained from www.hp.com/support/lj2410, <http://www.hp.com/support/lj2420>, or <http://www.hp.com/support/lj2430>. (The site is in English.)

Online troubleshooting tools

HP Instant Support Professional Edition (ISPE) is a suite of Web-based troubleshooting tools for desktop computing and printing products. ISPE helps you quickly identify, diagnose, and resolve computing and printing problems. The ISPE tools are available at <http://instantsupport.hp.com>.

Telephone support

Hewlett-Packard Company provides free telephone support during the warranty period. When you call, you will be connected to a responsive team that is waiting to help you. For the telephone number for your country/region, see the flyer that came in the box with the product, or visit <http://www.hp.com/support/callcenters>. Before calling HP, have the following information ready: the product name and serial number, the date of purchase, and a description of the problem.

You can also find support on the Internet at <http://www.hp.com>. Click the **support & drivers** block.

Software utilities, drivers, and electronic information

Go to http://www.hp.com/go/lj2410_software, http://www.hp.com/go/lj2420_software, or http://www.hp.com/go/lj2430_software. (The site is in English, but printer drivers can be downloaded in several languages.)

For information over the telephone, see the flyer that came in the box with the printer.

HP direct ordering for accessories or supplies

Order supplies from the following Web sites:

United States: <http://www.hp.com/sbso/product/supplies>

Canada: <http://www.hp.ca/catalog/supplies>

Europe: <http://www.hp.com/go/supplies>

Asia-Pacific: <http://www.hp.com/paper/>

Order accessories from www.hp.com/support/lj2410, <http://www.hp.com/support/lj2420>, or <http://www.hp.com/support/lj2430>. For more information, see [Ordering parts, accessories, and supplies](#).

To order supplies or accessories over the telephone, call the following numbers:

United States businesses: 800-282-6672

United States small and medium businesses: 800-888-9909

United States home and home offices: 800-752-0900

Canada: 800-387-3154

To find the phone numbers for other countries/regions, see the flyer that came in the box with the printer.

HP service information

To locate HP-Authorized Dealers in the United States or Canada, call 800-243-9816 (United States) or 800-387-3867 (Canada). Or, go to <http://www.hp.com/go/cposupportguide>.

For service for your HP product in other countries/regions, call the customer support number for your country/region. See the flyer that came in the box with the printer.

HP service agreements

Call: 800-HPINVENT [800-474-6836 (U.S.)] or 800-268-1221 (Canada).

Out-of-Warranty Service: 800-633-3600.

Extended Service: Call: 800-HPINVENT [800-474-6836 (U.S.)] or 800-268-1221 (Canada). Or, go to the HP Care Pack Services Web site at <http://www.hpexpress-services.com>.

HP Toolbox

To check the printer status and settings and to view troubleshooting information and online documentation, use the HP Toolbox software. You can view the HP Toolbox when the printer is directly connected to your computer or when it is connected to a network. You must have performed a complete software installation to use the HP Toolbox. See [Using the HP Toolbox](#).

HP support and information for Macintosh computers

Visit: <http://www.hp.com/go/macosex> for Macintosh OS X support information and HP subscription service for driver updates.

Visit: <http://www.hp.com/go/mac-connect> for products designed specifically for the Macintosh user.

Table of contents

1 Printer basics

Quick access to printer information	2
User guide links	2
Where to look for more information	2
Printer configurations	3
Feature designations for the HP LaserJet 2400 series printer	3
Printer features	4
Printer parts	8
Interface ports	9
Control panel	10
Control-panel layout	10
Control-panel buttons	11
Control-panel lights	11
Printing control-panel menus	12
Using the printer Help system	12
Changing printer-control-panel configuration settings	13
Software	23
Operating systems and printer components	23
Printer drivers	24
Software for Macintosh computers	27
Installing the printing system software	28
Uninstalling the software	33
Selecting print media	34
Supported types and sizes of print media	34

2 Printing tasks

Selecting which tray is used for printing	38
Understanding tray order	38
Customizing tray 1 operation	38
Printing by type and size of media (locking trays)	39
Manually feeding media from tray 1	40
Selecting the correct fuser mode	41
Loading trays	42
Loading tray 1 (multipurpose tray)	42
Loading tray 2 (250-sheet tray)	43
Loading optional tray 3 (500-sheet tray)	45
Understanding media output options	47
Printing on envelopes	48
To load envelopes in tray 1	48
Printing on special media	50
Printing on labels	50
Printing on transparencies	51
Printing on custom-sized media or cardstock	51
Printing on letterhead, prepunched, or preprinted paper (single-sided)	52
Printing on both sides (duplexing)	54

Paper orientation for printing on both sides	54
Layout options for printing on both sides	55
To duplex by using the built-in duplexer	55
To duplex manually	56
Canceling a print job	57
Using the printer driver	58
Changing the settings for a print job	58
Changing default settings	58
Using printer-driver features	61
Printing watermarks	61
Printing multiple pages on one sheet of paper	62
Setting a custom paper size	62
Using EconoMode (draft) printing	63
Selecting print-quality settings	63
Using reduce/enlarge options	64
Selecting a paper source	64
Printing a cover, a different first or last page, or a blank page	65
Using job-storage features	66
Proofing and holding a job	66
Deleting a held job	66
Printing a private job	67
Deleting a private job	67

3 Managing and maintaining the printer

Using the embedded Web server	70
Opening the embedded Web server	70
Information tab	71
Settings tab	71
Networking tab	72
Other links	72
Using HP Web Jetadmin software	73
Using the HP Toolbox	74
Supported operating systems	74
Supported browsers	74
To view the HP Toolbox	75
Status tab	75
Troubleshooting tab	75
Alerts tab	76
Documentation tab	76
Device Settings window	76
Toolbox links	77
Other links	77
Uninstalling the HP Toolbox	78
To uninstall the HP Toolbox by using the Windows desktop shortcut	78
To uninstall the HP Toolbox by using Add/Remove Programs in the Windows control panel.....	78
Managing and configuring printer drivers	79
HP Web Jetadmin software plug-in	79
Customization utility	80
Configuring e-mail alerts	81
Setting the real-time clock	82
Setting the date and time	82
Checking the printer configuration	85
Menu map	85
Configuration page	85

Supplies status page	87
PS or PCL font list	87
Managing the print cartridge	89
HP print cartridges	89
Non-HP print cartridges	89
Print-cartridge authentication	89
Print-cartridge storage	89
Print-cartridge life expectancy	90
Checking the supply level	90
Cartridge-low and cartridge-out conditions	90
Cleaning the printer	92
Cleaning the outside	92
Cleaning the paper path and print-cartridge areas	92
Cleaning the fuser	93

4 Problem solving

Troubleshooting flowchart	96
1 Does the control panel display read READY?	96
2 Can you print a configuration page?	97
3 Can you print from a program?	98
4 Does the job print as expected?	100
5 Does the printer select the proper trays?	102
Solving general printing problems	104
Guidelines for using paper	108
Printing special pages	109
Clearing jams	110
Typical jam locations	110
Understanding printer messages	116
Using the printer online Help system	116
Resolving persistent messages	116
Correcting print-quality problems	128
Print-quality checklist	128
Image defect examples	128
Light print (partial page)	130
Light print (entire page)	130
Specks	130
Dropouts	131
Lines	131
Gray background	131
Toner smear	132
Loose toner	132
Repeating defects	133
Repeating image	133
Misformed characters	133
Page skew	134
Curl or wave	134
Wrinkles or creases	135
Vertical white lines	135
Tire tracks	135
White spots on black	136
Scattered lines	136
Blurred print	136
Random image repetition	137
Troubleshooting network printing problems	138
Troubleshooting common Windows problems	139

Troubleshooting common Macintosh problems	140
Troubleshooting common PostScript problems	146
General problems	146
Specific errors	146

Appendix A Supplies and accessories

Ordering parts, accessories, and supplies	150
Ordering directly from HP	150
Ordering through service or support providers	150
Ordering directly through the embedded Web server (for printers that are connected to a network)	150
Ordering directly through the HP Toolbox software (for printers that are directly connected to a computer)	151
Part numbers	152
Paper-handling accessories	152
Print cartridges	152
Memory	152
Cables and interfaces	153
Print media	153

Appendix B Control panel menus

Retrieve Job menu	158
Information menu	160
Paper Handling menu	161
Configure Device menu	165
Printing submenu	165
Print Quality submenu	168
System Setup submenu	172
I/O submenu	175
Resets submenu	176
Diagnostics menu	178
Service menu	179

Appendix C Specifications

HP LaserJet 2400 series physical specifications	181
Electrical specifications	182
Acoustic emissions	183
Operating environment	184
Paper specifications	185
Printing and paper storage environment	185
Envelopes	186
Labels	188
Transparencies	188

Appendix D Printer memory and expansion

Overview	190
Printer memory	191
To install printer memory	191
Installing CompactFlash cards	195
To install a CompactFlash card	195
Checking DIMM or CompactFlash installation	198
To verify that DIMMs or CompactFlash cards are installed correctly	198
Saving resources (permanent resources)	199

Installing an EIO card	200
To install an EIO card	200
To remove an installed EIO card	201

Appendix E Printer commands

Understanding PCL 6 and PCL 5e printer command syntax	204
Combining escape sequences	204
Using escape characters	205
Selecting PCL 6 and PCL 5 fonts	205
Common PCL 6 and PCL 5 printer commands	206

Appendix F Regulatory information

Introduction	211
FCC regulations	212
Environmental Product Stewardship program	213
Protecting the environment	213
Ozone production	213
Energy consumption	213
HP LaserJet printing supplies	213
Material safety data sheet	214
For more information	215
Declaration of conformity	216
Country-/region-specific safety statements	217
Laser safety statement	217
Canadian DOC statement	217
Japanese VCCI statement	217
Korean EMI statement	217
Finnish laser statement	218

Appendix G Service and support

Hewlett-Packard limited warranty statement	219
Print Cartridge Limited Warranty Statement	221
Availability of support and service	222
HP maintenance agreements	222
Onsite service agreements	222
HP Express Exchange (U.S. and Canada only)	223
To use HP Express Exchange	223
Repacking the printer	224
To repack the printer	224
Service information form	225

Index

1

Printer basics

Thank you for purchasing an HP LaserJet 2400 series printer. If you have not done so, see the getting started guide (**start**) provided with the printer for setup instructions.

Now that the printer is set up and ready to use, take a few moments to familiarize yourself with the printer. This section provides information about the following topics:

- [Quick access to printer information](#)
- [Printer configurations](#)
- [Printer features](#)
- [Printer parts](#)
- [Control panel](#)
- [Software](#)
- [Selecting print media](#)

Quick access to printer information

This section summarizes the resources that are available to learn more about setting up and using the printer.

User guide links

- [Part numbers](#)
- [Control-panel layout](#)
- [Troubleshooting flowchart](#)

Where to look for more information

Several references are available for use with this printer. See www.hp.com/support/lj2410, <http://www.hp.com/support/lj2420>, or <http://www.hp.com/support/lj2430>.

Setting up the printer

Getting started guide—Provides step-by-step instructions for installing and setting up the printer. This hard-copy guide is included with each printer.

Network installation guide—Contains instructions to set up the printer on a network. This hard-copy guide is included with printers that come with an HP Jetdirect embedded print server.

HP Jetdirect Embedded Print Server Administrator's Guide—Contains information for configuring and troubleshooting an HP Jetdirect embedded print server. You can print a copy from the CD-ROM that came with the printer. (Available with models that include an HP Jetdirect embedded print server.)

Accessory installation guides—Provides step-by-step instructions for installing accessories, such as an optional tray. A hard-copy guide is supplied with each accessory.

Using the printer

User guide—Contains detailed information for using the printer and for troubleshooting problems. This guide is available on the CD-ROM that came with the printer. It is also available through the HP Toolbox software.

Online Help—Contains information about the printer options that are available from within the printer drivers. To view a Help file, open the online Help through the printer driver.

HTML (online) user guide—Contains detailed information for using the printer and for troubleshooting problems. Go to www.hp.com/support/lj2410, <http://www.hp.com/support/lj2420>, or <http://www.hp.com/support/lj2430>. After connecting, click **Manuals**.

Printer control-panel Help—This printer features a Help system at the control panel that provides instructions for resolving most printer errors. To view Help for a message (if available), press ? (**HELP** button).

Printer configurations

The HP LaserJet 2400 series printer is available in several configurations. The letters that follow the printer name indicate the differences between the configurations. Each letter refers to a specific feature. Use the information in this section to determine which features your model has.

NOTE

Not all models are available in all configurations.

Feature designations for the HP LaserJet 2400 series printer

Letter	Description
no letter	This is the base model.
d	Models with this designation include a duplexing unit for automatic two-sided printing.
n	Models with this designation include an embedded HP Jetdirect print server for connecting to a 10/100Base-T network.
t	Models with this designation include an additional paper tray.

Printer features

The following tables describe the features for the HP LaserJet 2400 series printers.

Speed

HP LaserJet 2410 printer	HP LaserJet 2420 series printer	HP LaserJet 2430 series printer
Prints on letter-size paper at 25 pages per minute (ppm). Prints on A4-size paper at 24 ppm.	Prints on letter-size paper at 30 pages per minute (ppm). Prints on A4-size paper at 28 ppm.	Prints on letter-size paper at 35 pages per minute (ppm). Prints on A4-size paper at 33 ppm.

Resolution

HP LaserJet 2410 printer	HP LaserJet 2420 series printer	HP LaserJet 2430 series printer
FastRes 1200—produces 1200-dpi print quality for fast, high-quality printing of business text and graphics. ProRes 1200—produces 1200-dpi printing for the best quality in line art and graphic images. HP LaserJet print cartridges for crisp, sharp output.	FastRes 1200—produces 1200-dpi print quality for fast, high-quality printing of business text and graphics. ProRes 1200—produces 1200-dpi printing for the best quality in line art and graphic images. HP LaserJet print cartridges for crisp, sharp output.	FastRes 1200—produces 1200-dpi print quality for fast, high-quality printing of business text and graphics. ProRes 1200—produces 1200-dpi printing for the best quality in line art and graphic images. HP LaserJet print cartridges for crisp, sharp output.

Paper handling

HP LaserJet 2410 printer	HP LaserJet 2420 series printer	HP LaserJet 2430 series printer
Includes a 100-sheet manual-feed input tray and a 250-sheet input tray. Compatible with an optional 500-sheet paper feeder.	Includes a 100-sheet manual-feed input tray and a 250-sheet input tray. Compatible with an optional 500-sheet paper feeder. HP LaserJet 2420d and dn models include a duplex-printing accessory for automatic two-sided printing.	Includes a 100-sheet manual-feed input tray and a 250-sheet input tray. The HP LaserJet 2430t, tn, and dtn models also include a 500-sheet input tray. HP LaserJet 2430dtn model includes a duplex-printing accessory for automatic two-sided printing.

Memory and processor

HP LaserJet 2410 printer	HP LaserJet 2420 series printer	HP LaserJet 2430 series printer
<p>Includes 32 MB of random-access memory (RAM).</p> <p>Expandable up to 288 MB maximum memory.</p> <p>400-megahertz (MHz) processor speed.</p>	<p>HP LaserJet 2420 printer includes 32 MB of random-access memory (RAM), expandable up to 288 MB maximum memory.</p> <p>HP LaserJet 2420d printer includes 48 MB RAM, expandable up to 304 MB maximum memory.</p> <p>HP LaserJet 2420n and dn models include 64 MB RAM, expandable up to 320 MB maximum memory.</p> <p>400-megahertz (MHz) processor speed.</p>	<p>HP LaserJet 2430t printer includes 48 MB of random-access memory (RAM), expandable up to 304 MB maximum memory.</p> <p>HP LaserJet 2430n, tn, and dtn models include 64 MB RAM, expandable up to 320 MB maximum memory.</p> <p>400-megahertz (MHz) processor speed.</p>

Interface connections and networking

HP LaserJet 2410 printer	HP LaserJet 2420 series printer	HP LaserJet 2430 series printer
<p>Includes a bidirectional, extended capabilities (ECP) type-B (IEEE 1284-compliant) parallel connection.</p> <p>Includes a universal serial bus (USB) 2.0 connection (full and high speed).</p> <p>Includes one PCI-based enhanced input/output (EIO) expansion slot.</p>	<p>Includes a bidirectional, ECP type-B (IEEE 1284-compliant) parallel connection.</p> <p>Includes a USB 2.0 connection (full and high speed).</p> <p>Includes one PCI-based enhanced input/output (EIO) expansion slot.</p> <p>HP LaserJet 2420n and dn models include an embedded HP Jetdirect print server for connecting to a 10/100Base-TX network.</p>	<p>Includes a bidirectional, ECP type-B (IEEE 1284-compliant) parallel connection.</p> <p>Includes a USB 2.0 connection (full and high speed).</p> <p>Includes one PCI-based enhanced input/output (EIO) expansion slot.</p> <p>HP LaserJet 2430n, tn, and dtn models include an embedded HP Jetdirect print server for connecting to a 10/100Base-TX network.</p>

Language and fonts

HP LaserJet 2410 printer	HP LaserJet 2420 series printer	HP LaserJet 2430 series printer
<p>HP PCL6, PCL 5e, and HP PostScript® (PS) 3 emulation.</p> <p>80 fonts for Microsoft® Windows®.</p> <p>Additional fonts can be added by installing a CompactFlash font card.</p>	<p>HP PCL6, PCL 5e, and HP PostScript® (PS) 3 emulation.</p> <p>80 fonts for Microsoft® Windows®.</p> <p>Additional fonts can be added by installing a CompactFlash font card.</p>	<p>HP PCL6, PCL 5e, and HP PostScript® (PS) 3 emulation.</p> <p>80 fonts for Microsoft® Windows®.</p> <p>Additional fonts can be added by installing a CompactFlash font card.</p>

Print cartridge

HP LaserJet 2410 printer	HP LaserJet 2420 series printer	HP LaserJet 2430 series printer
Standard print cartridge prints up to 6,000 pages. HP smart printing supplies program automatically alerts when toner is low.	Standard print cartridge prints up to 6,000 pages. HP smart printing supplies program automatically alerts when toner is low.	Standard print cartridge prints up to 6,000 pages. HP smart printing supplies program automatically alerts when toner is low.

Energy savings

HP LaserJet 2410 printer	HP LaserJet 2420 series printer	HP LaserJet 2430 series printer
The printer automatically conserves electricity by reducing power consumption when it is not printing. As an ENERGY STAR® partner, Hewlett-Packard Company has determined that this product meets ENERGY STAR® guidelines for energy efficiency.	The printer automatically conserves electricity by reducing power consumption when it is not printing. As an ENERGY STAR® partner, Hewlett-Packard Company has determined that this product meets ENERGY STAR® guidelines for energy efficiency.	The printer automatically conserves electricity by reducing power consumption when it is not printing. As an ENERGY STAR® partner, Hewlett-Packard Company has determined that this product meets ENERGY STAR® guidelines for energy efficiency.

Economical printing

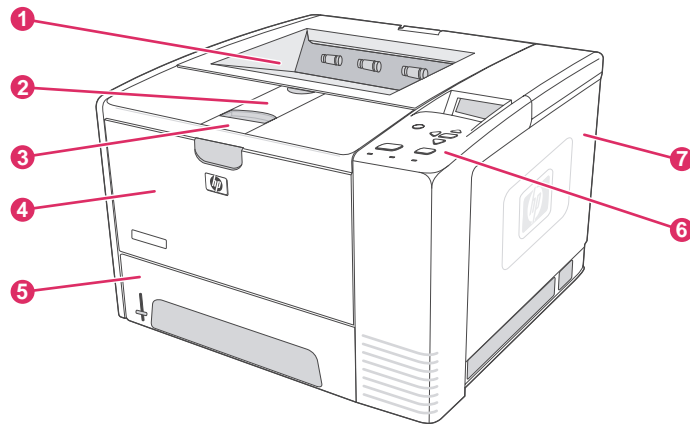
HP LaserJet 2410 printer	HP LaserJet 2420 series printer	HP LaserJet 2430 series printer
N-up printing (multiple pages on one sheet) saves paper. Duplex printing (for models that include a duplex-printing accessory) saves paper. Printing in EconoMode saves toner.	N-up printing (multiple pages on one sheet) saves paper. Duplex printing (for models that include a duplex-printing accessory) saves paper. Printing in EconoMode saves toner.	N-up printing (multiple pages on one sheet) saves paper. Duplex printing (for models that include a duplex-printing accessory) saves paper. Printing in EconoMode saves toner.

Accessibility

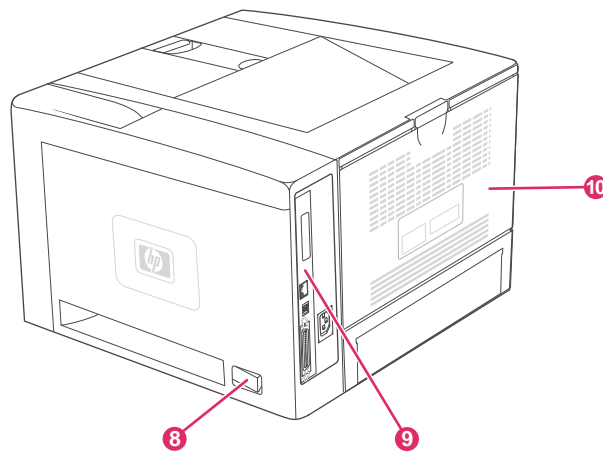
HP LaserJet 2410 printer	HP LaserJet 2420 series printer	HP LaserJet 2430 series printer
<p>The online user guide is compatible with text screen-readers.</p> <p>The print cartridge can be inserted and removed by using one hand.</p> <p>All doors and covers can be opened by using one hand.</p> <p>The 250-sheet input tray is easy to open and close.</p> <p>All media-width guides can be adjusted by using one hand.</p>	<p>The online user guide is compatible with text screen-readers.</p> <p>The print cartridge can be inserted and removed by using one hand.</p> <p>All doors and covers can be opened by using one hand.</p> <p>The 250-sheet input tray is easy to open and close.</p> <p>All media-width guides can be adjusted by using one hand.</p>	<p>The online user guide is compatible with text screen-readers.</p> <p>The print cartridge can be inserted and removed by using one hand.</p> <p>All doors and covers can be opened by using one hand.</p> <p>The 250-sheet and 500-sheet input trays are easy to open and close.</p> <p>All media-width guides can be adjusted by using one hand.</p>

Printer parts

Before using the printer, familiarize yourself with the parts of the printer.



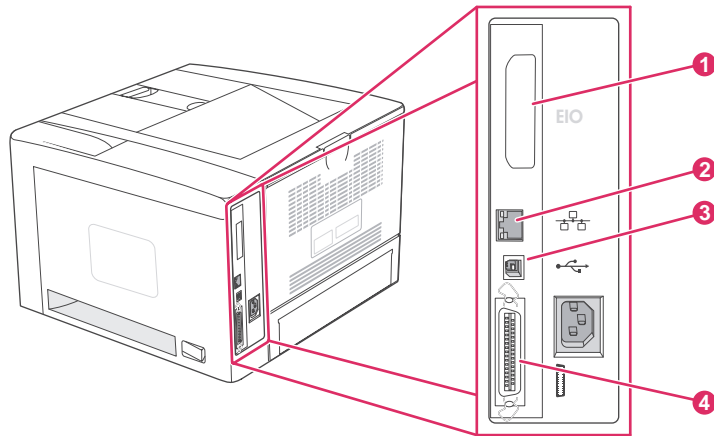
- 1 Top output bin
- 2 Long-media extension
- 3 Latch to open the front cover (provides access to the print cartridge)
- 4 Tray 1 (pull to open)
- 5 Tray 2
- 6 Control panel
- 7 Right-side cover (provides access to DIMMs and CompactFlash cards)



- 8 On/off switch
- 9 Interface ports (see [Interface ports](#))
- 10 Rear output bin (pull to open)

Interface ports

The printer has four interface ports: one EIO slot and three ports for connecting to a computer or a network.



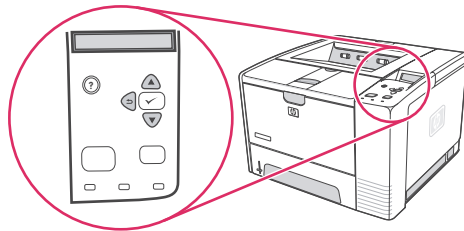
- 1 EIO slot
- 2 Embedded HP Jetdirect print server (HP LaserJet 2420n, 2420dn, 2430tn, and 2430dtn models only)
- 3 USB 2.0 connection
- 4 IEEE 1284B-compliant parallel connection

Control panel

This section provides information about the control panel and its features:

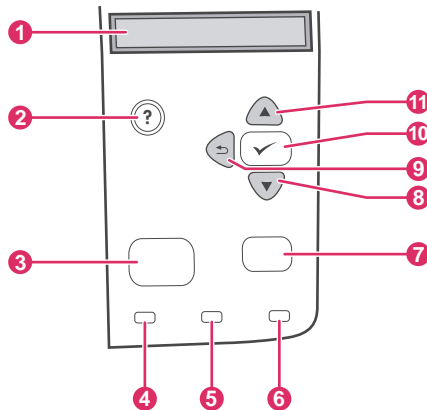
- [Control-panel layout](#)
- [Control-panel buttons](#)
- [Control-panel lights](#)
- [Printing control-panel menus](#)
- [Changing printer-control-panel configuration settings](#)
- [Using the printer Help system](#)

The control panel is located on the top of the printer.



See [Interpreting control-panel messages](#) to identify and troubleshoot control-panel messages.

Control-panel layout



- 1 Graphical display
- 2 **HELP** button
- 3 **MENU** button
- 4 Ready light
- 5 Data light
- 6 Attention light
- 7 **STOP** button
- 8 **DOWN** button
- 9 **BACK** button
- 10 **SELECT** button
- 11 **UP** button

Control-panel buttons

Button	Function
? (HELP)	<ul style="list-style-type: none"> Provides information about the message on the graphical display.
↶ (BACK)	<ul style="list-style-type: none"> Backs up one level in the menu tree or backs up one numeric entry. Exits menus if held down for more than 1 second.
MENU	<ul style="list-style-type: none"> Enters and exits the menus.
▲ (UP)	<ul style="list-style-type: none"> Navigates to the previous item in the list, or increases the value of items that are numerical in nature.
✓ (SELECT)	<ul style="list-style-type: none"> Clears an error condition when the condition is clearable. Saves the selected value for an item. Performs the action that is associated with the item that is highlighted on the graphical display.
▼ (DOWN)	<ul style="list-style-type: none"> Navigates to the next item in the list, or decreases the value of items that are numerical in nature.
STOP	<ul style="list-style-type: none"> Cancels the current print job in process and expels all of the active pages from the paper path. The time that it takes to cancel the job depends on the size of the print job. (Press the button only once.) Also clears continuable errors that are associated with the canceled job. <hr/> <p>NOTE</p> <p>The control panel lights cycle while the print job is cleared from both the printer and the computer, and then the printer returns to the ready state (Ready light on).</p>

Control-panel lights

Light	State	Indication
Ready	On	The printer is online and ready to accept data to print.
	Off	The printer cannot accept data because it is offline (paused) or has experienced an error.
	Blinking	The printer is going offline. The printer stops processing the current print job and expels all of the active pages from the paper path.

Light	State	Indication
Data	On	The printer has data to print, but is waiting to receive all of the data.
	Off	The printer has no data to print.
	Blinking	The printer is processing or printing the data.
Attention	On	The printer has experienced a problem. Note the message on the control-panel display, and then turn the printer off and on. See Interpreting control-panel messages for help in resolving problems.
	Off	The printer is functioning without error.
	Blinking	Action is required. See the control-panel display.

Printing control-panel menus

To see the current settings for the menus and items that are available at the control panel, print a control-panel menu map. You might want to store the menu map near the printer for reference.

NOTE

For a complete list of the items that are available in the control-panel menus, see [Control panel menus](#).

To print a control-panel menu map

1. Press **MENU** to open the menus.
2. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **INFORMATION**, and then press ✓ (**SELECT** button).
3. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **PRINT MENU MAP**, and then press ✓ (**SELECT** button).

Using the printer Help system

This printer features a Help system at the control panel that provides instructions for resolving most printer errors.

To view Help for a message (if available), press ? (**HELP** button). If the Help topic is longer than four lines, use the ▲ (**UP** button) or ▼ (**DOWN** button) to scroll through the entire topic.

To exit the Help system, press ? (**HELP** button) again.

Changing printer-control-panel configuration settings

By using the printer control panel, you can make changes to general printer configuration default settings such as tray size and type, sleep delay, printer personality (language), and jam recovery.

The printer-control-panel settings can also be changed from a computer by using the setting page of the embedded Web server. The computer shows the same information that the control panel shows. For more information, see [Using the embedded Web server](#).

CAUTION

Configuration settings seldom need to be changed. Hewlett-Packard Company recommends that only the system administrator change configuration settings.

Changing control-panel settings

For a complete list of menu items and possible values, see [Control panel menus](#). Certain menu options appear only if the associated tray or accessory is installed. For example, the **EIO** menu appears only if an EIO card is installed.

To change a control-panel setting

1. Press **MENU** to open the menus.
2. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the menu that you want, and then press ✓ (**SELECT** button).
3. Some menus might have several submenus. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the submenu item that you want, and then press ✓ (**SELECT** button).
4. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the setting, and then press ✓ (**SELECT** button). Some settings change rapidly if ▲ (**UP** button) or ▼ (**DOWN** button) is held down. An asterisk (*) appears next to the selection on the display, indicating that it is now the default.
5. Press **MENU** to exit the menu.

NOTE

Printer-driver settings override control-panel settings. Software program settings override both printer-driver settings and control-panel settings. If you cannot gain access to a menu or item, it is either not an option for the printer or you have not turned on the associated higher-level option. See your network administrator if a function has been locked (**Access denied menus locked** appears on the printer control-panel display).

Show address

This item determines whether the printer's IP address appears on the display with the **Ready** message.

To show the IP address

1. Press **MENU** to open the menu.
2. Press ▼ (**DOWN** button) to highlight **CONFIGURE DEVICE**.
3. Press ✓ (**SELECT** button) to select **CONFIGURE DEVICE**.
4. Press ▼ (**DOWN** button) to highlight **SYSTEM SETUP**.
5. Press ✓ (**SELECT** button) to select **SYSTEM SETUP**.
6. Press ▼ (**DOWN** button) to highlight **SHOW ADDRESS**.
7. Press ✓ (**SELECT** button) to select **SHOW ADDRESS**.
8. Press ▲ (**UP** button) or ▼ (**DOWN** button) to select the desired option.
9. Press ✓ (**SELECT** button) to select the option.
10. Press **MENU** to exit the menu.

Tray behavior options

Four user-defined options are available for tray behavior:

- **USE REQUESTED TRAY.** Selecting **EXCLUSIVELY** ensures that the printer does not automatically select another tray when you indicate that a specific tray should be used. Selecting **FIRST** allows the printer to pull from a second tray if the specified tray is empty. **EXCLUSIVELY** is the default setting.
- **MANUALLY FEED PROMPT.** If you select **ALWAYS** (the default value), the system always shows a prompt before pulling from the multipurpose tray. If you select **UNLESS LOADED**, the system displays the prompt only if the multipurpose tray is empty.
- **PS DEFER MEDIA.** This setting affects how non-HP PostScript drivers behave with the printer. You do not need to change this setting if you use the drivers that HP supplies. If set to **ENABLED**, non-HP PostScript drivers use the same HP tray selection method as the HP drivers. If set to **DISABLED**, some non-HP PostScript drivers use the PostScript tray selection method instead of the HP method.
- **SIZE/TYPE PROMPT.** Use this item to control whether the tray configuration message and its corresponding prompts are shown whenever a tray is opened and closed. These prompts instruct you to change the type or size if the tray is configured for a different type or size than is loaded in the tray.

To set Use Requested Tray

1. Press **MENU** to open the menus.
2. Press ▼ (**DOWN** button) to highlight **CONFIGURE DEVICE**.
3. Press ✓ (**SELECT** button) to select **CONFIGURE DEVICE**.
4. Press ▼ (**DOWN** button) to highlight **SYSTEM SETUP**.
5. Press ✓ (**SELECT** button) to select **SYSTEM SETUP**.
6. Press ▼ (**DOWN** button) to highlight **TRAY BEHAVIOR**.
7. Press ✓ (**SELECT** button) to select **TRAY BEHAVIOR**.
8. Press ✓ (**SELECT** button) to select **USE REQUESTED TRAY**.
9. Press ▲ (**UP** button) or ▼ (**DOWN** button) to select **EXCLUSIVELY** or **FIRST**.
10. Press ✓ (**SELECT** button) to set the behavior.
11. Press **MENU** to exit the menu.

To set Manually Feed Prompt

1. Press **MENU** to open the menus.
2. Press ▼ (**DOWN** button) to highlight **CONFIGURE DEVICE**.
3. Press ✓ (**SELECT** button) to select **CONFIGURE DEVICE**.
4. Press ▼ (**DOWN** button) to highlight **SYSTEM SETUP**.
5. Press ✓ (**SELECT** button) to select **SYSTEM SETUP**.
6. Press ▼ (**DOWN** button) to highlight **TRAY BEHAVIOR**.
7. Press ✓ (**SELECT** button) to select **TRAY BEHAVIOR**.
8. Press ▼ (**DOWN** button) to highlight **MANUALLY FEED PROMPT**.
9. Press ✓ (**SELECT** button) to select **MANUALLY FEED PROMPT**.
10. Press ▲ (**UP** button) or ▼ (**DOWN** button) to select **ALWAYS** or **UNLESS LOADED**.
11. Press ✓ (**SELECT** button) to set the behavior.
12. Press **MENU** to exit the menu.

To set the printer default for PS Defer Media

1. Press **MENU** to open the menus.
2. Press ▼ (**DOWN** button) to highlight **CONFIGURE DEVICE**.
3. Press ✓ (**SELECT** button) to select **CONFIGURE DEVICE**.
4. Press ▼ (**DOWN** button) to highlight **SYSTEM SETUP**.
5. Press ✓ (**SELECT** button) to select **SYSTEM SETUP**.
6. Press ▼ (**DOWN** button) to highlight **TRAY BEHAVIOR**.
7. Press ✓ (**SELECT** button) to select **TRAY BEHAVIOR**.
8. Press ✓ (**SELECT** button) to select **PS DEFER MEDIA**.
9. Press ▲ (**UP** button) or ▼ (**DOWN** button) to select **ENABLED** or **DISABLED**.
10. Press ✓ (**SELECT** button) to set the behavior.
11. Press **MENU** to exit the menu.

To set Size/type prompt

1. Press **MENU** to open the menus.
2. Press ▼ (**DOWN** button) to highlight **CONFIGURE DEVICE**.
3. Press ✓ (**SELECT** button) to select **CONFIGURE DEVICE**.
4. Press ▼ (**DOWN** button) to highlight **SYSTEM SETUP**.
5. Press ✓ (**SELECT** button) to select **SYSTEM SETUP**.
6. Press ▼ (**DOWN** button) to highlight **TRAY BEHAVIOR**.
7. Press ✓ (**SELECT** button) to select **TRAY BEHAVIOR**.
8. Press ✓ (**SELECT** button) to select **SIZE/TYPE PROMPT**.
9. Press ▲ (**UP** button) or ▼ (**DOWN** button) to select **DISPLAY** or **DO NOT DISPLAY**.
10. Press ✓ (**SELECT** button) to set the behavior.
11. Press **MENU** to exit the menu.

Sleep Delay

The adjustable Sleep Delay feature reduces power consumption when the printer has been inactive for an extended period. You can set the length of time before the printer goes into sleep mode to **1 MINUTE**, **15 MINUTES**, **30 MINUTES**, or to **60 MINUTES**, **90 MINUTES**, **2 HOURS**, or **4 HOURS**. The default setting is **30 MINUTES**.

NOTE

The printer control-panel display dims when the printer is in sleep mode. Sleep mode does not affect printer warm-up time unless the printer was in sleep mode for more than 8 hours.

To set the Sleep Delay

1. Press **MENU** to open the menus.
2. Press ▼ (**DOWN** button) to highlight **CONFIGURE DEVICE**.
3. Press ✓ (**SELECT** button) to select **CONFIGURE DEVICE**.
4. Press ▼ (**DOWN** button) to highlight **SYSTEM SETUP**.
5. Press ✓ (**SELECT** button) to select **SYSTEM SETUP**.
6. Press ▼ (**DOWN** button) to highlight **SLEEP DELAY**.
7. Press ✓ (**SELECT** button) to select **SLEEP DELAY**.
8. Press ▲ (**UP** button) or ▼ (**DOWN** button) to select the appropriate time period.
9. Press ✓ (**SELECT** button) to set the time period.
10. Press **MENU** to exit the menu.

To turn the Sleep Mode on or off

1. Press **MENU** to open the menus.
2. Press ▼ (**DOWN** button) to highlight **CONFIGURE DEVICE**.
3. Press ✓ (**SELECT** button) to select **CONFIGURE DEVICE**.
4. Press ▼ (**DOWN** button) to highlight **RESETS**.
5. Press ✓ (**SELECT** button) to select **RESETS**.
6. Press ▼ (**DOWN** button) to highlight **SLEEP MODE**.
7. Press ✓ (**SELECT** button) to select **SLEEP MODE**.
8. Press ▲ (**UP** button) or ▼ (**DOWN** button) to select **ON** or **OFF**.
9. Press ✓ (**SELECT** button) to set the selection.
10. Press **MENU** to exit the menu.

Personality

This printer features automatic personality (printer language) switching.

- **AUTO** configures the printer to automatically detect the type of print job and configure its personality to accommodate that job. This is the default setting. Use this setting unless you are experiencing problems.
- **PCL** configures the printer to use Printer Control Language.
- **PDF** configures the printer to print .PDF files. (This option is only available the printer has sufficient memory.)
- **PS** configures the printer to use PostScript emulation.

To set the personality

1. Press **MENU** to open the menus.
2. Press ▼ (**DOWN** button) to highlight **CONFIGURE DEVICE**.
3. Press ✓ (**SELECT** button) to select **CONFIGURE DEVICE**.
4. Press ▼ (**DOWN** button) to highlight **SYSTEM SETUP**.
5. Press ✓ (**SELECT** button) to select **SYSTEM SETUP**.
6. Press ▼ (**DOWN** button) to highlight **PERSONALITY**.
7. Press ✓ (**SELECT** button) to select **PERSONALITY**.
8. Press ▲ (**UP** button) or ▼ (**DOWN** button) to select the appropriate personality (**AUTO**, **PS**, **PCL**, or **PDF**).
9. Press ✓ (**SELECT** button) to set the personality.
10. Press **MENU** to exit the menu.

Clearable warnings

You can determine the display time for control-panel clearable warnings with this option by selecting **ON** or **JOB**. The default value is **JOB**.

- Select **ON** to show clearable warnings until you press ✓ (**SELECT** button).
- Select **JOB** to show clearable warnings until the end of the job in which they were generated.

To set the clearable warnings

1. Press **MENU** to open the menus.
2. Press ▼ (**DOWN** button) to highlight **CONFIGURE DEVICE**.
3. Press ✓ (**SELECT** button) to select **CONFIGURE DEVICE**.
4. Press ✓ (**SELECT** button) to highlight **SYSTEM SETUP**.
5. Press ✓ (**SELECT** button) to select **SYSTEM SETUP**.
6. Press ▼ (**DOWN** button) to highlight **CLEARABLE WARNINGS**.
7. Press ✓ (**SELECT** button) to select **CLEARABLE WARNINGS**.
8. Press ▲ (**UP** button) or ▼ (**DOWN** button) to select the appropriate setting.
9. Press ✓ (**SELECT** button) to set the selection.
10. Press **MENU** to exit the menu.

Auto continue

You can determine printer behavior when the system generates an Auto Continuable error. **ON** is the default setting.

- Select **ON** if you want an error message to appear for ten seconds before the printer automatically continues to print.
- Select **OFF** to pause printing any time an error message appears and until you press ✓ (**SELECT** button).

To set the auto continue

1. Press **MENU** to open the menus.
2. Press ▼ (**DOWN** button) to highlight **CONFIGURE DEVICE**.
3. Press ✓ (**SELECT** button) to select **CONFIGURE DEVICE**.
4. Press ▼ (**DOWN** button) to highlight **SYSTEM SETUP**.
5. Press ✓ (**SELECT** button) to select **SYSTEM SETUP**.
6. Press ▼ (**DOWN** button) to highlight **AUTO CONTINUE**.
7. Press ✓ (**SELECT** button) to select **AUTO CONTINUE**.
8. Press ▲ (**UP** button) or ▼ (**DOWN** button) to select the appropriate setting.
9. Press ✓ (**SELECT** button) to set the selection.
10. Press **MENU** to exit the menu.

Cartridge low

The printer has two options for reporting that print cartridge life is low: **CONTINUE** is the default value.

- Select **CONTINUE** to allow the printer to continue printing while a warning appears and until the print cartridge is replaced.
- Select **STOP** if you want the printer to pause printing until you replace the used print cartridge or press ✓ (**SELECT** button), which allows the printer to print while the warning appears.

To set supplies-low reporting

1. Press **MENU** to open the menus.
2. Press ▼ (**DOWN** button) to highlight **CONFIGURE DEVICE**.
3. Press ✓ (**SELECT** button) to select **CONFIGURE DEVICE**.
4. Press ▼ (**DOWN** button) to highlight **SYSTEM SETUP**.
5. Press ✓ (**SELECT** button) to select **SYSTEM SETUP**.
6. Press ▼ (**DOWN** button) to highlight **CARTRIDGE LOW**.
7. Press ✓ (**SELECT** button) to select **CARTRIDGE LOW**.
8. Press ▲ (**UP** button) or ▼ (**DOWN** button) to select the appropriate setting.
9. Press ✓ (**SELECT** button) to set the selection.
10. Press **MENU** to exit the menu.

Cartridge out

The printer has two options for this menu item.

- Select **CONTINUE** to allow the printer to continue printing. A **REPLACE CARTRIDGE** warning message appears until the print cartridge is replaced. Printing in this mode can continue only for a specific number of pages. After that, the printer stops printing until you replace the empty print cartridge. This is the default setting.
- Select **STOP** if you want the printer to stop printing until the empty print cartridge is replaced.

To set the cartridge-out response

1. Press **MENU** to open the menus.
2. Press ▼ (**DOWN** button) to highlight **CONFIGURE DEVICE**.
3. Press ✓ (**SELECT** button) to select **CONFIGURE DEVICE**.
4. Press ▼ (**DOWN** button) to highlight **SYSTEM SETUP**.
5. Press ✓ (**SELECT** button) to select **SYSTEM SETUP**.
6. Press ▼ (**DOWN** button) to highlight **CARTRIDGE OUT**.
7. Press ✓ (**SELECT** button) to select **CARTRIDGE OUT**.
8. Press ▲ (**UP** button) or ▼ (**DOWN** button) to select the appropriate setting.
9. Press ✓ (**SELECT** button) to set the selection.
10. Press **MENU** to exit the menu.

Jam recovery

Use this option to configure the printer response to jams, including how the printer handles the pages involved. **AUTO** is the default value.

- **AUTO**. The printer automatically turns jam recovery on when sufficient memory is available.
- **ON**. The printer reprints any page that is involved in a jam. Additional memory is allocated to store the last few pages that were printed, and this might cause overall printer performance to suffer.
- **OFF**. The printer does not reprint any page that was involved in a jam. Because no memory is used to store the most recent pages, overall printer performance might be optimized.

To set the jam-recovery response

1. Press **MENU** to open the menus.
2. Press ▼ (**DOWN** button) to highlight **CONFIGURE DEVICE**.
3. Press ✓ (**SELECT** button) to select **CONFIGURE DEVICE**.
4. Press ▼ (**DOWN** button) to highlight **SYSTEM SETUP**.
5. Press ✓ (**SELECT** button) to select **SYSTEM SETUP**.
6. Press ▼ (**DOWN** button) to highlight **JAM RECOVERY**.
7. Press ✓ (**SELECT** button) to select **JAM RECOVERY**.
8. Press ▲ (**UP** button) or ▼ (**DOWN** button) to select the appropriate setting.
9. Press ✓ (**SELECT** button) to set the selection.
10. Press **MENU** to exit the menu.

RAM disk

This option determines how the RAM disk feature is configured. This option is only available if the printer has at least 8 MB of free memory. The default is **AUTO**.

- **AUTO**. The printer determines the optimal RAM disk size based on the amount of available memory.
- **OFF**. The RAM disk is disabled, but a minimal RAM disk is still active (sufficient to scan one page).

To set the RAM disk

1. Press **MENU** to open the menus.
2. Press ▼ (**DOWN** button) to highlight **CONFIGURE DEVICE**.
3. Press ✓ (**SELECT** button) to select **CONFIGURE DEVICE**.
4. Press ▼ (**DOWN** button) to highlight **SYSTEM SETUP**.
5. Press ✓ (**SELECT** button) to select **SYSTEM SETUP**.
6. Press ▼ (**DOWN** button) to highlight **RAM DISK**.
7. Press ✓ (**SELECT** button) to select **RAM DISK**.
8. Press ▲ (**UP** button) or ▼ (**DOWN** button) to select the appropriate setting.
9. Press ✓ (**SELECT** button) to set the selection.
10. Press **MENU** to exit the menu.

Language

If **LANGUAGE** appears in English on the control panel, use the following procedure. Otherwise, turn the printer off and then on again. When **XXX MB** appears, press and hold ✓ (**SELECT** button). When all three control panel lights are lit, release ✓ (**SELECT** button) and use the following procedure to set the language.

To select the language

1. When **SELECT LANGUAGE** appears in English, press ✓ (**SELECT** button), and wait until **LANGUAGE** appears in English.
2. Press ▼ (**DOWN** button) until the preferred language appears.
3. Press ✓ (**SELECT** button) to save the preferred language.

Software

The printer comes with helpful software, including printer drivers and optional software. For easy printer setup and access to the full range of printer features, HP recommends that you install the software that is provided.

Check the installation notes and Readme files on the printer CD-ROM for additional software and languages. HP software is not available in all languages.

Operating systems and printer components

The printer CD-ROM contains the software components and drivers for users and network administrators. The printer drivers that are provided on the CD-ROM must be installed in order to take full advantage of printer features. The other programs are recommended, but are not required for operation. Check the installation notes and Readme files on the printer CD-ROM for more information.

The CD-ROM includes software that is designed for users and network administrators who are operating in the following environments:

- Microsoft® Windows® 98 and Windows Millennium Edition (Me)
- Microsoft Windows NT® 4.0 (parallel and network connections only)
- Microsoft Windows 2000, Windows XP, and Windows Server 2003
- Apple Mac OS version 9.1 and later, and OS X version 10.1 or later

The most recent printer drivers for all supported operating systems are available at http://www.hp.com/go/lj2410_software, http://www.hp.com/go/lj2420_software, or http://www.hp.com/go/lj2430_software. If you do not have access to the Internet, see the support flyer that came in the printer box for information about obtaining the most recent software.

The following table lists the available software for the printer.

Software	Windows 98/Me	Windows NT 4.0	Windows 2000/XP/ Server 2003	Mac OS	UNIX®/ Linux	OS/2
Windows Installer	x	x	x			
PCL 6	x	x	x			
PCL 5	x	x	x			
PostScript emulation	x	x	x			
HP Web Jetadmin*		x	x		x	
Macintosh Installer				x		
Macintosh PostScript Printer Description (PPD) files				x		
IBM drivers*						x

Software	Windows 98/Me	Windows NT 4.0	Windows 2000/XP/Server 2003	Mac OS	UNIX®/Linux	OS/2
Model scripts*					x	

*Available only on the World Wide Web.

Printer drivers

Printer drivers provide access to the printer features and allow the computer to communicate with the printer (by using a printer language). Check the install notes, Readme, and late-breaking Readme files on the printer CD-ROM for additional software and languages.

The following printer drivers are included with the printer. The most recent drivers are available at http://www.hp.com/go/lj2410_software, http://www.hp.com/go/lj2420_software, or http://www.hp.com/go/lj2430_software. Depending on the configuration of Windows-based computers, the installation program for the printer software automatically checks the computer for Internet access to obtain the latest drivers.

Operating system ¹	PCL 6	PCL 5	PS	PPD ²
Windows 98, Me	x	x	x	x
Windows NT 4.0	x	x	x	x
Windows 2000, XP, Server 2003	x	x	x	x
Macintosh OS			x	x

¹ Not all printer features are available from all drivers or operating systems. See the context-sensitive help in the printer driver for available features.

² PostScript (PS) Printer Description files (PPDs)

NOTE

If your system did not automatically check the Internet for the latest drivers during software installation, download them from http://www.hp.com/go/lj2410_software, http://www.hp.com/go/lj2420_software, or http://www.hp.com/go/lj2430_software. After you are connected, click **Downloads and Drivers** to find the driver that you want to download.

You can obtain Model Scripts for UNIX and Linux by downloading them from the Internet or by requesting them from an HP-authorized service or support provider. For Linux support see <http://www.hp.com/go/linux>. For UNIX support see http://www.hp.com/go/jetdirectunix_software. For additional information see the support flyer that came in the printer box.

NOTE

If the printer driver that you want is not on the printer CD-ROM or is not listed here, check the install notes, Readme, and late-breaking Readme files to see if the printer driver is supported. If it is not supported, contact the manufacturer or distributor of the program that you are using and request a driver for the printer.

Additional drivers

The following drivers are not included on the CD-ROM, but are available from the Internet.

- OS/2 PCL 5 or PCL 6 printer driver.
- OS/2 PS printer driver.

- UNIX model scripts.
- Linux drivers.
- HP OpenVMS drivers.

NOTE

The OS/2 drivers are available from IBM and are packaged with OS/2. They are not available for Simplified Chinese, Korean, Japanese, or Traditional Chinese.

Select the correct printer driver for your needs

Select a printer driver based on the way that you use the printer. Certain printer features are available only in the PCL 6 drivers. See the printer driver Help for available features.

- Use the PCL 6 driver to take full advantage of printer features. For general office printing, the PCL 6 driver is recommended to provide optimum performance and print quality.
- Use the PCL 5 driver if backward compatibility with previous PCL printer drivers or older printers is necessary.
- Use the PS driver if you are printing primarily from PostScript-specific programs such as Adobe® and Corel, for compatibility with PostScript Level 3 needs, or for PS CompactFlash font support.

NOTE

The printer automatically switches between PS and PCL printer languages.

Printer driver Help

Each printer driver has Help screens that can be activated by using the Help button, the F1 button on the computer keyboard, or a question-mark symbol in the upper-right corner of the printer driver (depending on the Windows operating system that you are using). You can also open printer-driver Help by right-clicking any item in the driver, and then clicking **What's This?** These Help screens give detailed information about the specific driver. Printer driver Help is separate from your program Help.

Using the printer drivers

Use one of the following methods to open the printer drivers from your computer:

Operating System	To change the settings for all print jobs until the software program is closed	To change the print job default settings (for example, turn on Print on Both Sides by default)	To change the configuration settings (for example, add a physical option such as a tray or enable/disable a driver feature such as Allow Manual Duplexing)
Windows 98, NT 4.0, and ME	On the File menu in the software program, click Print . Select the printer, and then click Properties . The steps can vary; this procedure is most common.	Click Start , click Settings , and then click Printers . Right-click the printer icon, and then select Properties (Windows 98 and ME) or Document Defaults (Windows NT 4.0).	Click Start , click Settings , and then click Printers . Right-click the printer icon, and then select Properties . Click the Configure tab.

Operating System	To change the settings for all print jobs until the software program is closed	To change the print job default settings (for example, turn on Print on Both Sides by default)	To change the configuration settings (for example, add a physical option such as a tray or enable/disable a driver feature such as Allow Manual Duplexing)
Windows 2000, XP, and Server 2003	On the File menu in the software program, click Print . Select the printer, and then click Properties or Preferences . The steps can vary; this procedure is most common.	Click Start , click Settings , and then click Printers or Printers and Faxes . Right-click the printer icon, and then select Printing Preferences .	Click Start , click Settings , and then click Printers or Printers and Faxes . Right-click the printer icon, and then select Properties . Click the Device Settings tab.
Macintosh OS V9.1	On the File menu, click Print . Change the settings that you want on the various pop-up menus.	On the File menu, click Print . As you change settings on the pop-up menu, click Save Settings .	Click the desktop printer icon. From the Printing menu, click Change Setup .
Macintosh OS X V10.1	On the File menu, click Print . Change the settings that you want on the various pop-up menus.	On the File menu, click Print . Change the settings that you want on the various pop-up menus, and then on the main pop-up menu, click Save Custom Setting . These settings are saved as the Custom option. To use the new settings, you must select the Custom option every time that you open a program and print.	Delete the printer and reinstall it. The driver will be auto-configured with the new options when it is reinstalled. NOTE Use this procedure for AppleTalk connections only. Configuration settings might not be available in Classic mode.
Macintosh OS X V10.2	On the File menu, click Print . Change the settings that you want on the various pop-up menus.	On the File menu, click Print . Change the settings that you want on the various pop-up menus, and then, on the Presets pop-up menu, click Save as and type a name for the preset. These settings are saved in the Presets menu. To use the new settings, you must select the saved preset option every time you open a program and print.	Open Print Center by selecting the hard drive, clicking Applications , clicking Utilities , then double-clicking Print Center . Click on the print queue. On the Printers menu, click Show Info . Click the Installable Options menu. NOTE Configuration settings might not be available in Classic mode.

Operating System	To change the settings for all print jobs until the software program is closed	To change the print job default settings (for example, turn on Print on Both Sides by default)	To change the configuration settings (for example, add a physical option such as a tray or enable/disable a driver feature such as Allow Manual Duplexing)
Macintosh OS X V10.3	On the File menu, click Print . Change the settings that you want on the various pop-up menus.	On the File menu, click Print . Change the settings that you want on the various pop-up menus, and then, on the Presets pop-up menu, click Save as and type a name for the preset. These settings are saved in the Presets menu. To use the new settings, you must select the saved preset option every time that you open a program and print.	Open Printer Setup Utility by selecting the hard drive, clicking Applications , clicking Utilities , then double-clicking Printer Setup Utility . Click on the print queue. On the Printers menu, click Show Info . Click the Installable Options menu.

Software for Macintosh computers

The HP installer provides PostScript Printer Description (PPD) files, Printer Dialog Extensions (PDEs), and the HP LaserJet Utility for use with Macintosh computers.

The embedded Web server can be used with Macintosh computers if the printer is connected to a network. See [Using the embedded Web server](#) for more information.

PPDs

Use PPDs in combination with the Apple PostScript drivers to gain access to the printer features and to allow the computer to communicate with the printer. An installation program for the PPDs, PDEs, and other software is provided on the CD-ROM. Use the appropriate PS driver that comes with the operating system.

HP LaserJet Utility

Use the HP LaserJet Utility to control features that are not available in the driver. The illustrated screens make selecting printer features easy. Use the HP LaserJet Utility to perform the following tasks:

- Name the printer, assign it to a zone on the network, and download files and fonts.
- Configure and set the printer for Internet protocol (IP) printing.

NOTE

The HP LaserJet Utility is not currently supported for OS X, but the utility is supported for the Classic environment.

Installing the printing system software

The printer comes with printing system software and printer drivers on a CD-ROM. The printing system software on the CD-ROM must be installed in order to take full advantage of the printer features.

If you do not have access to a CD-ROM drive, you can download the printing system software from the Internet at http://www.hp.com/go/lj2410_software, http://www.hp.com/go/lj2420_software, or http://www.hp.com/go/lj2430_software.

NOTE

Sample model scripts for UNIX (HP-UX®, Sun Solaris) and Linux networks are available for download from the World Wide Web. For Linux support see <http://www.hp.com/go/linux>. For UNIX support see http://www.hp.com/go/jetdirectunix_software.

You can download the latest software free of charge at http://www.hp.com/go/lj2410_software, http://www.hp.com/go/lj2420_software, or http://www.hp.com/go/lj2430_software.

After you have followed the installation instructions and loaded the software, see [Using printer-driver features](#) to get the most out of your printer.

Printer driver Help

Each printer driver has Help screens that can be activated by using either the **Help** button, the **F1** button on the computer keyboard, or a question-mark symbol in the upper-right corner of the printer driver (depending on the Windows operating system that you are using). These Help screens give detailed information about the specific driver. Printer driver Help is separate from your program Help.

Installing Windows printing system software for direct connections

This section explains how to install the printing system software for Microsoft Windows 98, Windows Me, Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003.

When installing the printing software in a direct-connect environment, always install the software before connecting the parallel or USB cable. If the parallel or USB cable was connected before the software installation, see [Installing the software after the parallel or USB cable has been connected](#).

Either a parallel or USB cable can be used for the direct connection. Use an IEEE 1284-compatible cable or a standard 2-meter USB cable.

CAUTION

Do not connect parallel and USB cables at the same time.

NOTE

Windows NT 4.0 does not support USB cable connections.

To install the printing system software

1. Close all software programs that are open or running.
2. Insert the printer CD-ROM into the CD-ROM drive.

If the welcome screen does not open, start it by using the following procedure:

1. On the **Start** menu, click **Run**.
2. Type the following (where X is the letter of the CD-ROM drive): `X:\setup`
3. Click **OK**.

3. When prompted, click **Install Printer** and follow the instructions on the computer screen.
4. Click **Finish** when the installation has completed.
5. Restart the computer.
6. Print a page from any software program to make sure that the software is correctly installed.

If installation fails, reinstall the software. If this fails, check the installation notes and Readme files on the printer CD-ROM or the flyer that came in the printer box, or go to http://www.hp.com/go/lj2410_software, http://www.hp.com/go/lj2420_software, or http://www.hp.com/go/lj2430_software for help or more information.

Installing Windows printing system software for networks

The software on the printer CD-ROM supports network installation with a Microsoft network (except Windows 3.1x). For network installation on other operating systems, go to http://www.hp.com/go/lj2410_software, http://www.hp.com/go/lj2420_software, or http://www.hp.com/go/lj2430_software.

NOTE

Windows NT 4.0 drivers must be installed through the Windows Add-Printer Wizard.

The HP Jetdirect print server that is included with printer models that feature the letter "n" in the model name has a 10/100Base-TX network port. For other options, see [Ordering parts, accessories, and supplies](#) or contact your local HP dealer. See [HP customer care](#).

The installer does not support printer installation or printer object creation on Novell servers. It supports only direct-mode network installations between Windows computers and a printer. To install your printer and create objects on a Novell server, use an HP utility, such as HP Web Jetadmin, or a Novell utility, such as NWadmin.

To install the printing system software

1. If you are installing the software on Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003 make sure that you have administrator privileges.

Print a configuration page to make sure that the HP Jetdirect print server is configured correctly for the network. See [Configuration page](#). On the second page, locate the printer IP address. You might need this address to complete network installation.
2. Close all software programs that are open or running.
3. Insert the printer CD-ROM into the CD-ROM drive.
4. If the welcome screen does not open, start it by using the following procedure:
 1. On the **Start** menu, click **Run**.
 2. Type the following (where X is the letter of the CD-ROM drive): `X:\setup`
 3. Click **OK**.
5. When prompted, click **Install Printer** and follow the instructions on the computer screen.
6. Click **Finish** when the installation is complete.
7. Restart the computer.
8. Print a page from any software program to make sure that the software is correctly installed.

If installation fails, reinstall the software. If this fails, check the installation notes and Readme files on the printer CD-ROM or the flyer that came in the printer box, or go to http://www.hp.com/go/lj2410_software, http://www.hp.com/go/lj2420_software, or http://www.hp.com/go/lj2430_software for help or more information.

To set up a Windows computer to use the network printer with Windows-sharing

You can share the printer on the network so that other network users can print to it.

See your Windows documentation to set up Windows-sharing. After the printer is shared, install the printer software on all computers that share the printer.

Installing Macintosh printing system software for networks

This section describes how to install Macintosh printing system software. The printing system software supports Apple Mac OS 9.x and later and OS X V10.1 and later.

The printing system software includes the following components:

- **PostScript Printer Description files.** The PostScript (PS) Printer Description files (PPDs), in combination with the Apple LaserWriter 8 printer driver, provide access to the printer features and allow the computer to communicate with the printer. An installation program for the PPDs and other software is provided on the CD-ROM that came with the printer. In addition, use the Apple LaserWriter 8 printer driver that comes with the computer.
- **HP LaserJet Utility.** The HP LaserJet Utility provides access to features that are not available in the printer driver. Use the illustrated screens to select printer features and complete tasks with the printer:
 - Name the printer, assign it to a zone on the network, download files and fonts, and change many of the printer settings.
 - Set a password for the printer.
 - Check the levels of printer consumables.
 - Configure and set the printer for Internet Protocol (IP) or AppleTalk printing.

To install printer drivers in Mac OS 9.x

1. Connect the network cable between the HP Jetdirect print server and a network port.
2. Insert the CD-ROM into the CD-ROM drive. The CD-ROM menu runs automatically. If the CD-ROM menu does not run automatically, double-click the CD-ROM icon on the desktop, and then double-click the **Installer** icon. This icon is located in the Installer/ <language> folder of the Starter CD-ROM, where <language> is your language preference. For example, the Installer/English folder contains the Installer icon for the English printer software.
3. Follow the instructions on the screen.
4. From **HD**, click **Applications**, click **Utilities**, and then open the Apple Desktop Printer Utility.
5. Double click **Printer (AppleTalk)**.
6. Next to AppleTalk Printer Selection, click **Change**.
7. Select the printer, click **Auto Setup**, and then click **Create**.
8. On the **Printing** menu, click **Set Default Printer**.

To install printer drivers in Mac OS X V10.1 and later

1. Connect the network cable between the HP Jetdirect print server and a network port.
2. Insert the CD-ROM into the CD-ROM drive. The CD-ROM menu runs automatically. If the CD-ROM menu does not run automatically, double-click the CD-ROM icon on the desktop, and then double-click the **Installer** icon. This icon is located in the Installer/ <language> folder of the Starter CD-ROM, where <language> is your language preference. For example, the Installer/English folder contains the Installer icon for the English printer software.
3. Double-click the **HP LaserJet Installers** folder.
4. Follow the instructions on the computer screen.
5. Double-click the **Installer** icon for the appropriate language.

NOTE

If OS X and OS 9.x (Classic) are installed on the same computer, the installer will show both the Classic and the OS X installation options.

6. On your computer hard drive, double-click **Applications**, double-click **Utilities**, and then double-click **Print Center** or **Print Setup Utility**.

NOTE

If you are using OS X V10.3, "Print Setup Utility" has replaced "Print Center".

7. Click **Add Printer**.
8. Select your connection type.
9. Select the printer name.
10. Click **Add Printer**.
11. Close the Print Center or the Print Setup Utility by clicking the **close** button in the upper-left corner.

NOTE

Macintosh computers cannot be connected directly to the printer with a parallel port.

Installing Macintosh printing system software for direct connections

NOTE

Macintosh computers do not support parallel port connections.

This section explains how to install the printing system software for OS 9.x and later and OS X V10.1 and later.

The Apple LaserWriter driver must be installed in order to use the PPD files. Use the Apple LaserWriter 8 driver that came with your Macintosh computer.

To install the printing system software

1. Connect a USB cable between the USB port on the printer and the USB port on the computer. Use a standard 2-meter USB cable.
2. Close all software programs that are open or running.
3. Insert the printer CD-ROM into the CD-ROM drive and run the installer.

The CD-ROM menu runs automatically. If the CD-ROM menu does not run automatically, double-click the CD-ROM icon on the desktop, and then double-click the **Installer** icon. This icon is located in the Installer/<language> folder of the Starter CD-ROM, where <language> is your language preference.

4. Follow the instructions on the computer screen.

5. Restart the computer.
6. **For Mac OS 9.x:**
 1. From **HD**, click **Applications**, click **Utilities**, and then open the Apple Desktop Printer Utility.
 2. Double-click **Printer (USB)**, and then click **OK**.
 3. Next to **USB Printer Selection**, click **Change**.
 4. Select the printer, and then click **OK**.
 5. Next to **Postscript Printer Description (PPD) File**, click **Auto Setup**, and then click **Create**.
 6. On the **Printing** menu, click **Set Default Printer**.

For Mac OS X:

1. From **HD**, click **Applications**, then click **Utilities**, and then click **Print Center** or **Printer Setup Utility** to start the Print Center or Printer Setup Utility.
2. If the printer appears in the Printer list, delete the printer.
3. Click **Add**.
4. On the drop-down menu at the top, click **USB**.
5. In the **Printer Model List**, click **HP**.
6. Under **Model Name**, click **HP LaserJet 2400 series**, and then click **Add**.
7. Print a page from any software program to make sure that the software is correctly installed.

If installation fails, reinstall the software. If this fails, see the installation notes or Readme files on the printer CD-ROM or the flyer that came in the printer box, or go to http://www.hp.com/go/lj2410_software, http://www.hp.com/go/lj2420_software, or http://www.hp.com/go/lj2430_software for help or more information.

Installing the software after the parallel or USB cable has been connected

If you have already connected a parallel or USB cable to a Windows computer, the **New Hardware Found** dialog box appears when you turn on the computer.

To install the software for Windows 98 or Windows Me

1. In the **New Hardware Found** dialog box, click **Search CD-ROM drive**.
2. Click **Next**.
3. Follow the instructions on the computer screen.
4. Print a page from any software program to make sure that the printer software is correctly installed.

If installation fails, reinstall the software. If this fails, check the installation notes and Readme files on the printer CD-ROM or the flyer that came in the printer box, or go to http://www.hp.com/go/lj2410_software, http://www.hp.com/go/lj2420_software, or http://www.hp.com/go/lj2430_software for help or more information.

To install the software for Windows 2000, Windows XP, or Windows Server 2003

1. In the **New Hardware Found** dialog box, click **Search**.

2. On the **Locate Driver Files** screen, select the **Specify a Location** check box, clear all other check boxes, and then click **Next**.
3. Type the following text, where X is the letter of the CD-ROM drive: X:\2000XP
4. Click **Next**.
5. Follow the instructions on the computer screen.
6. Click **Finish** when installation is complete.
7. Select a language and follow the instructions on the computer screen.
8. Print a page from any software program to make sure that the software is correctly installed.

If installation fails, reinstall the software. If this fails, check the installation notes and Readme files on the printer CD-ROM or the flyer that came in the printer box, or go to http://www.hp.com/go/lj2410_software, http://www.hp.com/go/lj2420_software, or http://www.hp.com/go/lj2430_software for help or more information.

Uninstalling the software

This section explains how to uninstall the printing system software.

To remove software from Windows operating systems

Use the Uninstaller to select and remove any or all of the Windows HP printing-system components.

1. Click **Start** and then point to **Programs**.
2. Point to **HP LaserJet 2400 series**, and then click **Uninstaller**.
3. Click **Next**.
4. Select the HP printing-system components that you want to uninstall.
5. Click **OK**.
6. Follow the instructions on the computer screen to complete the uninstallation.

To remove software from Macintosh operating systems

Drag the HP LaserJet folder and PPDs to the trash can:

- **For Mac OS 9**, the folders are in hard drive/HP LaserJet and in hard drive/system folder/extensions/printer descriptions.
- **For Mac OS X**, the folders are in hard drive/Library/Printers/PPDs/Contents/Resources/EN.lproj.

Selecting print media

This printer accepts a variety of media, such as cut-sheet paper, including up to 100% recycled fiber content paper; envelopes; labels; transparencies; and custom-size paper. Properties such as weight, composition, grain, and moisture content are important factors that affect printer performance and output quality. Paper that does not meet the guidelines that are outlined in this manual can cause the following problems:

- Poor print quality
- Increased jams
- Premature wear on the printer, requiring repair

NOTE

Some paper might meet all of the guidelines in this manual and still not produce satisfactory results. This might be the result of improper handling, unacceptable temperature and humidity levels, or other variables over which Hewlett-Packard has no control. Before purchasing large quantities of media, make sure that it meets the requirements that are specified in this User guide and in the *HP LaserJet Printer Family Print Media Guide*, which is available for download at <http://www.hp.com/support/ljpaperguide>. Always test paper before buying large quantities.

CAUTION

Using media that does not meet HP specifications can cause problems for the printer, requiring repair. This repair is not covered by the HP warranty or service agreements.

Supported types and sizes of print media

Tray 1	Dimensions ¹	Weight	Capacity ²
Minimum size (custom)	76 x 127 mm (3 x 5 inches)	60 to 199 g/m ² (16 to 53 lb)	100 sheets of 75 g/m ² (20 lb) paper
Maximum size (custom)	216 x 356 mm (8.5 x 14 inches)		
Transparency	Same as minimum and maximum paper sizes listed above.	Thickness: 0.10 to 0.14 mm (0.0039 to 0.0055 inch)	75 typical
Labels ³		Thickness: 0.10 to 0.14 mm (0.0039 to 0.005 inch)	50 typical
Envelopes		Up to 90 g/m ² (16 to 24 lb)	Up to 10

¹The printer supports a wide range of sizes. See the printer software for supported sizes. To print on custom-size paper see [Printing on custom-sized media or cardstock](#).

²Capacity can vary depending on media weight and thickness, as well as environmental conditions.

³Smoothness: 100 to 250 (Sheffield).

NOTE

You might experience some jams when using any media that is less than 178 mm (7 inches) long. These jams might be caused by paper that has been affected by environmental conditions. For optimum performance, make sure that you are storing and handling the media correctly (see [Printing and paper storage environment](#)).

Tray 2 (250-sheet tray) and tray 3 (500-sheet tray)	Dimensions ¹	Weight	Capacity ²
Letter	216 x 279 mm (8.5 x 11 inches)	60 to 120 g/m ² (16 to 32 lb)	250 sheets of 75 g/m ² (20 lb) paper
A4	210 x 297 mm (8.3 x 11.7 inches)		
Executive	191 x 267 mm (7.3 x 10.5 inches)		
Legal	216 x 356 mm (8.5 x 14 inches)		
B5 (JIS)	182 x 257 mm (7.2 x 10 inches)		
A5	148 x 210 mm (5.8 x 8.3 inches)		
8.5 x 13 inches	216 x 330 mm (8.5 x 13 inches)		

¹The printer supports a wide range of sizes. See the printer software for supported sizes. To print on custom-size paper see [Printing on custom-sized media or cardstock](#).

²Capacity can vary depending on media weight and thickness, as well as environmental conditions.

Built-in duplexer ¹	Dimensions ²	Weight
Letter	216 x 279 mm (8.5 x 11 inches)	60 to 105 g/m ² (16 to 28 lb Bond)
A4	210 x 297 mm (8.3 x 11.7 inches)	
Legal	216 x 356 mm (8.5 x 14 inches)	
8.5 x 13 inches	216 x 330 mm (8.5 x 13 inches)	

¹The built-in duplexer is included only with the HP LaserJet 2420d, 2420dn, and 2430dtn printers.

²The printer supports a wide range of sizes. See the printer software for supported sizes. To print on custom-size paper see [Printing on custom-sized media or cardstock](#).

For more information about using print media, see [Paper specifications](#).

2

Printing tasks

This section provides information about common printing tasks.

- [Selecting which tray is used for printing](#)
- [Selecting the correct fuser mode](#)
- [Loading trays](#)
- [Understanding media output options](#)
- [Printing on envelopes](#)
- [Printing on special media](#)
- [Printing on both sides \(duplexing\)](#)
- [Canceling a print job](#)
- [Using the printer driver](#)
- [Using printer-driver features](#)
- [Using job-storage features](#)

Selecting which tray is used for printing

You can select how the printer pulls media from the trays. The following sections provide information about configuring the printer to pull media from specific trays.

[Understanding tray order](#)

[Customizing tray 1 operation](#)

[Printing by type and size of media \(locking trays\)](#)

[Manually feeding media from tray 1](#)

Understanding tray order

When the printer receives a print job, it selects the tray by trying to match the requested paper type and size with what has been loaded in the trays. Using an "autoselect" process, it searches all available trays for the paper that satisfies the request, starting with the bottom tray and ending with the top tray (tray 1). The printer begins printing the job as soon as it finds the correct type and size.

NOTE

The "autoselect" process occurs only if no specific tray is requested for the job. If a specific tray is requested, the job prints from the requested tray.

- If media is loaded in tray 1 and tray 1 is set **TRAY 1 TYPE=ANY** and **TRAY 1 SIZE=ANY** on the **PAPER HANDLING** menu, the printer will always pull media from tray 1 first. See [Customizing tray 1 operation](#) for more information.
- If the search fails, a message appears on the printer control-panel display requesting that you load the correct media type and size. You can load that media type and size, or you can override the request by selecting a different type and size at the printer control panel.
- If a tray runs out of media during a print job, the printer automatically switches to any tray that contains the same media type and size.

The autoselect process changes somewhat if you customize tray 1 operation (as explained in [Customizing tray 1 operation](#)) or if you set tray 1 for manual feed (as explained in [Manually feeding media from tray 1](#)).

Customizing tray 1 operation

The printer can be set to print from tray 1 if it is loaded, or to print only from tray 1 if the type of media that is loaded is specifically requested. See [Paper Handling menu](#).

Setting	Explanation
TRAY 1 TYPE=ANY TRAY 1 SIZE=ANY	The printer usually pulls media from tray 1 first unless it is empty or closed. If you do not keep media in tray 1 all the time, or if you use tray 1 only to manually feed media, keep the default setting of TRAY 1 TYPE=ANY and TRAY 1 SIZE=ANY on the Paper Handling menu.

Setting	Explanation
TRAY 1 TYPE= or TRAY 1 SIZE= a type other than ANY	<p>The printer treats tray 1 like the other trays. Instead of looking for media in tray 1 first, the printer pulls media from the tray that matches type and size settings that are selected in the software.</p> <p>In the printer driver, you can select media from any tray (including tray 1) by type, size, or source. To print by type and size of paper, see Printing by type and size of media (locking trays).</p>

You can also determine whether the printer shows a prompt to ask if it can pull media from tray 1 if it cannot find the type and size that you requested in another tray. You can set the printer to always prompt you before pulling from tray 1 or only prompt you if tray 1 is empty. Set the **USE REQUESTED TRAY** setting on the **System Setup** submenu of the **Configure Device** menu.

Printing by type and size of media (locking trays)

Printing by type and size is a way to be sure that print jobs always print on the media that you want. You can configure the trays for the type, such as plain or letterhead, and size, such as letter or A4, that is loaded in them.

If you configure the trays this way and then select a certain type and size in the printer driver, the printer automatically selects the tray loaded with that type or size. You do not have to select a specific tray (selecting by source). Configuring the printer this way is especially helpful if the printer is shared, and more than one person loads or removes media frequently.

Some older model printers have a feature that "locks out" trays to prevent printing on the wrong media. Printing by type and size eliminates the need to lock trays. For more information about types and sizes that each tray supports, see [Supported types and sizes of print media](#).

NOTE

To print by type and size from tray 2 or tray 3, it might be necessary to unload tray 1 and close it, or set **TRAY 1 TYPE** and **TRAY 1 SIZE** to types other than **ANY** on the PAPER HANDLING menu at the printer control panel. For more information, see [Customizing tray 1 operation](#). Settings in a program or the printer driver override control-panel settings. (Program settings generally override printer-driver settings.)

To print by type and size of paper

1. Be sure to load the trays correctly. See [Loading trays.](#))
2. At the printer control panel, open the PAPER HANDLING menu. Select the paper type for each tray. If you are unsure about which type you are loading, such as bond or recycled, check the label on the media package.
3. Select the paper-size settings at the printer control panel.
 - **Tray 1:** Set the paper size on the PAPER HANDLING menu if the printer is set to **TRAY 1 TYPE=** a type other than **ANY**. If custom paper is loaded, also set the custom-paper size on the PAPER HANDLING menu. (For more information, see [Printing on custom-sized media or cardstock.](#))
 - **Tray 2 and optional tray 3:** Set the paper size on the PAPER HANDLING menu. These trays do not support custom sizes.
4. In the program or printer driver, select a type other than **Auto Select**.

NOTE

The type and size settings can also be configured in the HP Web Jetadmin software for networked printers.

Manually feeding media from tray 1

The manual feed feature is another way of printing on special media from tray 1. Setting **MANUAL FEED** to **ON** either in the printer driver or at the printer control panel stops the printer after each job is sent, allowing you time to load special paper or other print media in tray 1. Press ✓ (**SELECT** button) to continue printing.

If tray 1 contains media when you send the print job, and the printer control panel has **TRAY 1 TYPE=ANY** and **TRAY 1 SIZE=ANY** as the default configuration for tray 1 operation, the printer will **not** stop and wait for media to be loaded. To have the printer wait, set **TRAY 1 TYPE** and **TRAY 1 SIZE** to types other than **ANY** on the PAPER HANDLING menu.

NOTE

If the **SIZE** and **TYPE** are set to **ANY**, and **MANUAL FEED PROMPT** is set to **UNLESS LOADED**, then the media will be pulled from tray 1 without prompting. If **MANUAL FEED PROMPT** is set to **ALWAYS**, then the printer will prompt you to load media, even if tray 1 is set to **TYPE=ANY** and **SIZE=ANY**.

If you have selected **MANUAL FEED=ON** at the printer control panel, this setting will override the printer driver, and all print jobs that you send to the printer will request manually fed paper in tray 1 unless a specific tray has been selected in the printer driver. If this feature is to be used only occasionally, it is best to set **MANUAL FEED=OFF** at the printer control panel and to select the manual feed option in the printer driver on a job-by-job basis.

Selecting the correct fuser mode

The printer automatically adjusts the fuser mode based on the media type to which the tray is set. For example, heavy paper, such as card stock, might need a higher fuser-mode setting in order to make the toner adhere better to the page, but transparencies need the LOW fuser-mode setting to avoid damage to the printer. The default setting generally provides the best performance for most print-media types.

The fuser mode can be changed only if the media type has been set for the tray that you are using. (See [Printing by type and size of media \(locking trays\)](#).) After the media type has been set for the tray, then the fuser mode for that type can be changed on the **CONFIGURE DEVICE** menu in the **PRINT QUALITY** submenu at the printer control panel. (See [Print Quality submenu](#).)

NOTE

Using a higher fuser mode, such as HIGH 1 or HIGH 2, improves the ability of the toner to adhere to paper, but it might cause other problems, such as excessive curl. The printer might print at a slower speed when the fuser mode is set to HIGH 1 or HIGH 2.

To reset the fuser modes to the default settings, open the **CONFIGURE DEVICE** menu at the printer control panel. On the **PRINT QUALITY** submenu, select **FUSER MODES**, and then select **RESTORE MODES**.

Loading trays

Load special print media, such as envelopes, labels, and transparencies, in tray 1 only. Load only paper in tray 2 or optional tray 3.

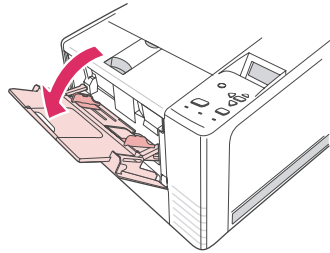
Loading tray 1 (multipurpose tray)

Tray 1 holds up to 100 sheets of paper, up to 75 transparencies, up to 50 sheets of labels, or up to 10 envelopes. See the following sections for information about printing on special media:

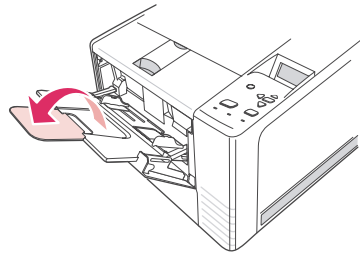
- Preprinted material—[Printing on letterhead, prepunched, or preprinted paper \(single-sided\)](#)
- Envelopes—[Printing on envelopes](#)
- Labels—[Printing on labels](#)

To load tray 1

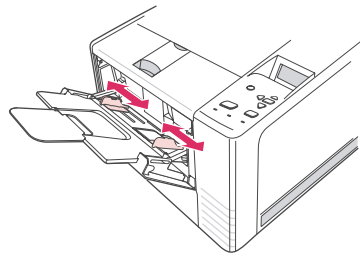
1. Open tray 1 by pulling the front cover down.



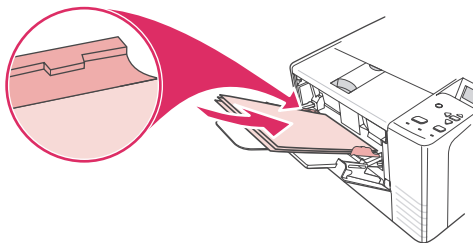
2. Slide out the plastic tray extender. If the media that is being loaded is longer than 229 mm (9 inches), also flip open the additional tray extender.



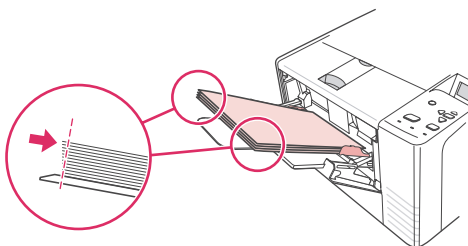
3. Slide the media-width guides slightly wider than the media.



4. Place media into the tray (short-edge in, print-side up). The media should be centered between the media-width guides and under the tabs on the media-width guides.



5. Slide the media-width guides inward until they lightly touch the media stack on both sides without bending it. Make sure that the media fits under the tabs on the media-width guides.



NOTE

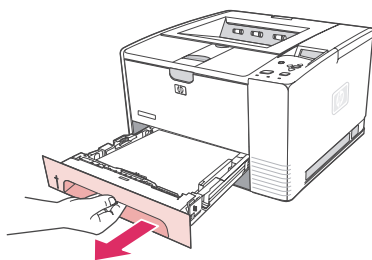
Do not add media to tray 1 while the printer is printing. This could cause a jam. Do not close the front door when the printer is printing.

Loading tray 2 (250-sheet tray)

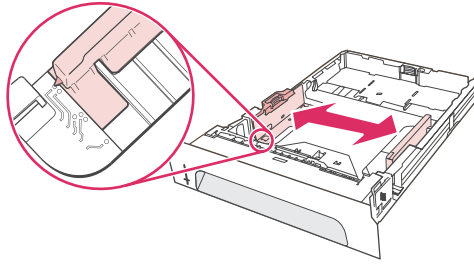
Tray 2 supports only paper (A4, A5, B5 JIS, Letter, Legal, Executive, and 8.5 x 13 inches).

To load tray 2

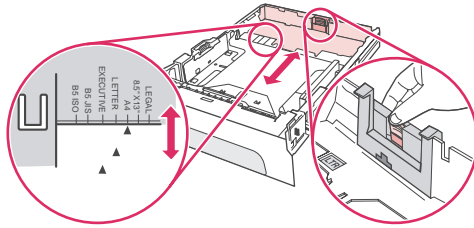
1. Pull the tray out of the printer and remove any paper.



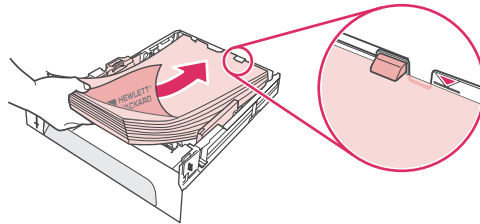
2. Adjust the media-width guides outward so that the pointer matches the paper size that you are loading.



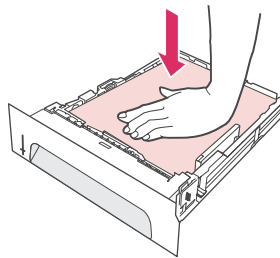
3. On the rear paper-length guide, press on the blue tab and adjust it so that the pointer matches the paper size that you are loading.



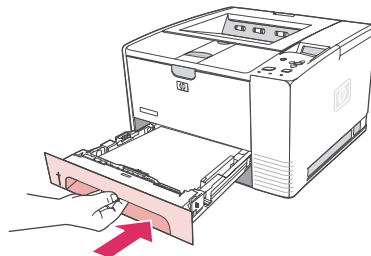
4. Place the paper in the tray and make sure that it is flat at all four corners. Keep the paper below the height tabs on the paper-length guide in the rear of the tray.



5. Push down on the paper to lock the metal paper-lift plate in place.



6. Slide the tray into the printer.



NOTE

Whenever you remove tray 2 from the printer, always push down on the paper to lock the metal paper-lift plate in place before you replace the tray. The metal paper-lift plate releases and lifts the paper when you push the tray into the printer.

Loading optional tray 3 (500-sheet tray)

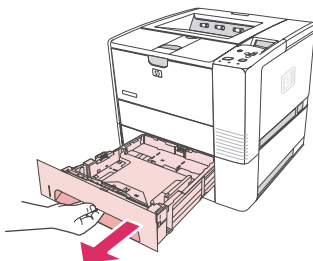
Tray 3 supports only paper (A4, A5, B5 JIS, Letter, Legal, Executive, and 8.5 x 13 inches).

NOTE

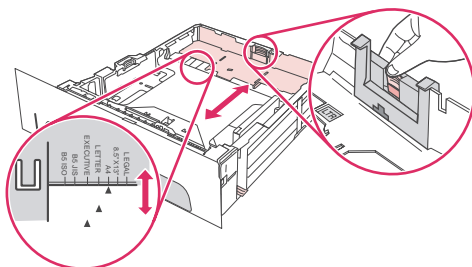
The tray 3 500-sheet feeder comes standard with some HP Color LaserJet 2460 printer models.

To load tray 3

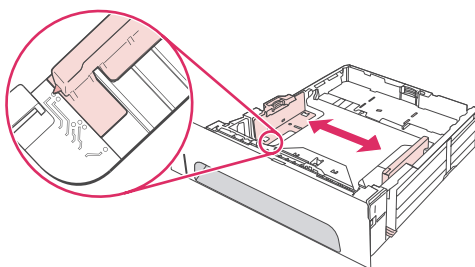
1. Pull the tray out of the printer and remove any paper.



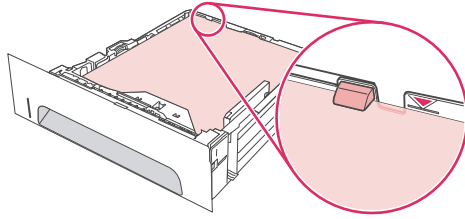
2. Adjust the rear length guide for the correct paper size.



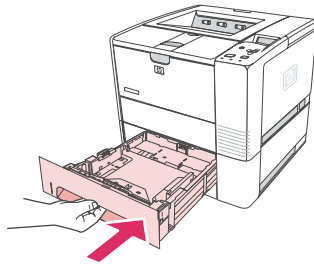
3. Adjust the side width guide for the correct paper size.



4. Place the paper in the tray and make sure that it is flat at all four corners. Keep the paper below the hooks on the side and rear of the tray.

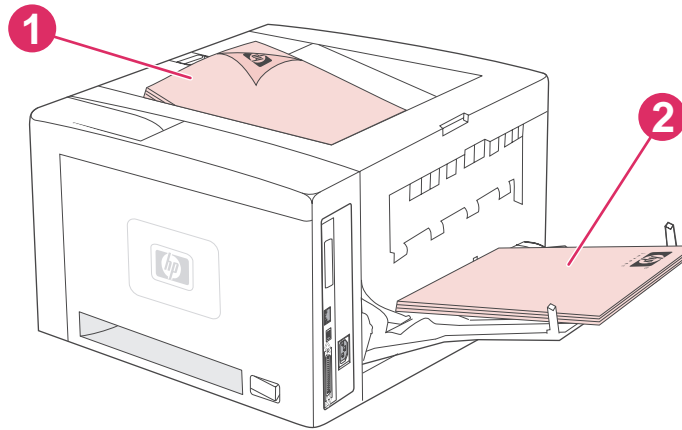


5. Slide the tray into the printer.



Understanding media output options

The printer comes with two output bins. The top output bin is used when the rear output bin is closed. The rear output bin is used when the rear output bin is open.



- 1 Top output bin (face down)
- 2 Rear output bin (face up)

NOTE

When tray 1 and the rear output bin are used together, they provide a straight-through paper path for your print job. Using a straight-through paper path can sometimes reduce curling.

Printing on envelopes

You can print envelopes from tray 1. Tray 1 holds up to 10 envelopes and supports standard or custom sizes.

For printing on any size of envelope, make sure to set the margins in your program at least 15.0 mm (0.6 inch) from the edge of the envelope.

The printer might print at a slower speed when printing envelopes. In addition, printing performance depends on the construction of the envelope. Always test a few sample envelopes before purchasing a large quantity. For envelope specifications, see [Envelopes](#).

WARNING!

Never use envelopes that contain coated linings, exposed self-stick adhesives, or other synthetic materials. These items can emit noxious fumes.

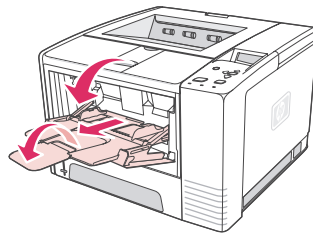
CAUTION

Envelopes that have clasps, snaps, windows, coated linings, exposed self-stick adhesives, or other synthetic materials can severely damage the printer. To avoid jamming and possible printer damage, never try to print on both sides of an envelope. Before you load envelopes, make that sure they are flat and not damaged or stuck together. Do not use envelopes that contain pressure-sensitive adhesive.

To load envelopes in tray 1

Many types of envelopes can be printed from tray 1. Up to 10 can be stacked in the tray.

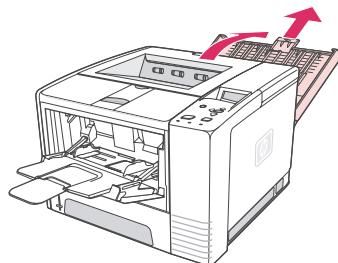
1. Open tray 1 by pulling the front cover down, then pull out the media support and fold out the media extension.



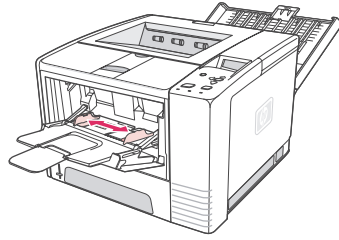
2. Open the rear output bin by pulling down on the top section of the bin. Slide out the extender until it extends fully.

NOTE

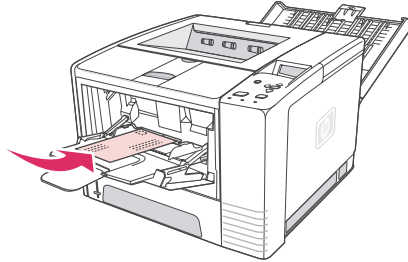
Using the rear output bin reduces envelope curl.



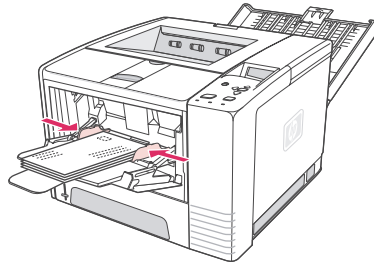
3. Slide the width guides on tray 1 outward to a position that is slightly wider than the envelopes.



4. Place the envelopes into the tray short-edge in, print-side up. The stamp end must enter the printer first.



5. Slide the width guides inward until they lightly touch the envelope stack without bending it. The envelopes should be centered between the paper guides and under the tabs on the paper-width guides.



NOTE

If the envelope has a flap on the short edge, this edge must enter the printer first. You might experience some jams when using any media that is less than 178 mm (7 inches) long. Shrinkage might be the result of environmental conditions. For optimum performance, make sure that you are storing and handling the paper correctly. For more information see [Printing and paper storage environment](#). Using media from another manufacturer might also help.

Printing on special media

This section discusses printing on types of media that require special handling:

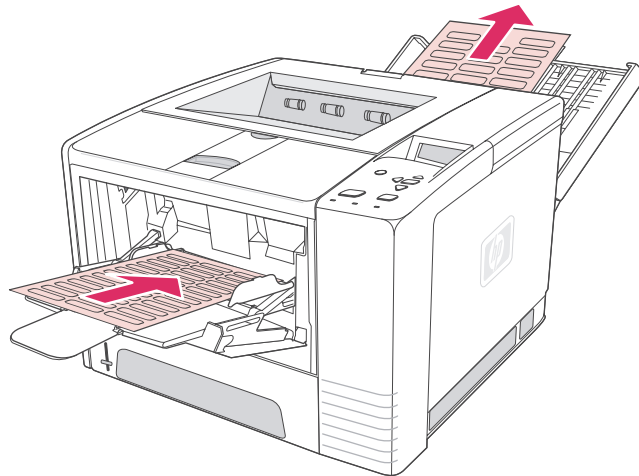
- [Printing on labels](#)
- [Printing on transparencies](#)
- [Printing on custom-sized media or cardstock](#)
- [Printing on letterhead, prepunched, or preprinted paper \(single-sided\)](#)

Printing on labels

Use only labels that are recommended for laser printers. For label specifications, see [Labels](#).

Guidelines for printing on labels

- Print labels from tray 1.
- Load labels print-side up.
- Use the rear output bin for labels.
- Remove label sheets from the output bin as they are printed to prevent them from sticking together.
- Do not use labels that are separating from the backing sheet or are wrinkled or damaged in any way.
- Do not use label sheets that have the backing sheet exposed, and do not reuse partially used label sheets.
- Do not feed a sheet of labels through the printer more than once. The adhesive backing is designed for one pass through the printer.



CAUTION

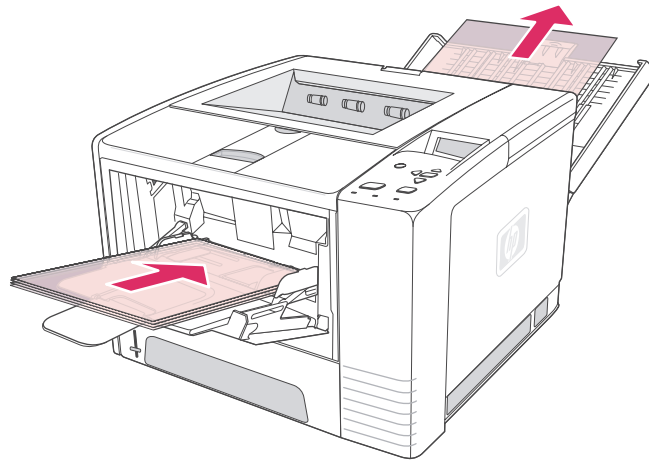
If a sheet of labels becomes jammed in the printer, see [Clearing jams](#).

Printing on transparencies

Use only transparencies that are recommended for use in laser printers. For transparency specifications, see [Transparencies](#).

Guidelines for printing on transparencies

- Print transparencies from tray 1.
- Use the top output bin to reduce curling (this is for transparencies only; for other media use the rear output bin to reduce curling).
- Remove transparencies from the output bin as they are printed to prevent them from sticking.
- Place transparencies on a flat surface after removing them from the printer.
- Set the printer driver for transparencies. See [Printing by type and size of media \(locking trays\)](#).
- For Macintosh computers, go to the HP LaserJet Utility and select transparencies.



Printing on custom-sized media or cardstock

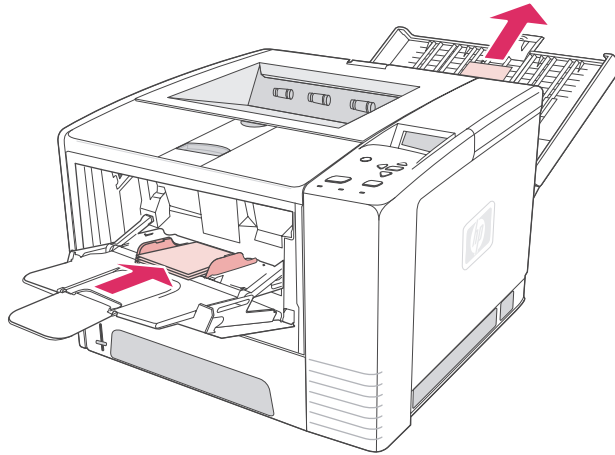
Postcards, 3 x 5 inch (index) cards, and other custom-sized media can be printed from tray 1. The minimum media size is 76 x 127 mm (3 x 5 inches) and the maximum media size is 216 x 356 mm (8.5 x 14 inches).

NOTE

You might experience some jams when using any media that is less than 178 mm (7 inches) long. Shrinkage might be the result of environmental conditions. For optimum performance, make sure that you are storing and handling the paper correctly. See [Printing and paper storage environment](#). Using media from another manufacturer might also help. Printing on odd sizes or weights of media (for example, small, long, or narrow paper) can decrease print speed. The decreased speed helps to prolong the life of internal printer parts. It also improves print quality with these types of media.

Guidelines for printing on custom-sized media and cardstock

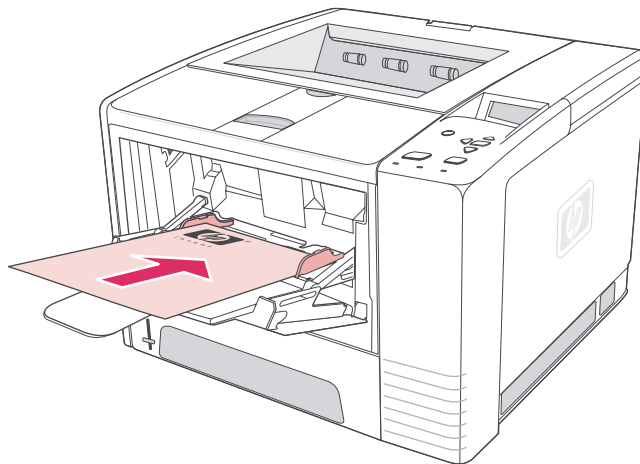
- Always insert the short-edge first into tray 1. If you want to print in landscape mode, make this selection through your software. Inserting paper long-edge first might cause a jam.
- Use the rear output bin to reduce curl.
- Do not print on media that is smaller than 76 mm (3 inches) wide or 127 mm (5 inches) long.
- In the software program, set margins at least 6.40 mm (0.25 inch) away from the edges of the media.



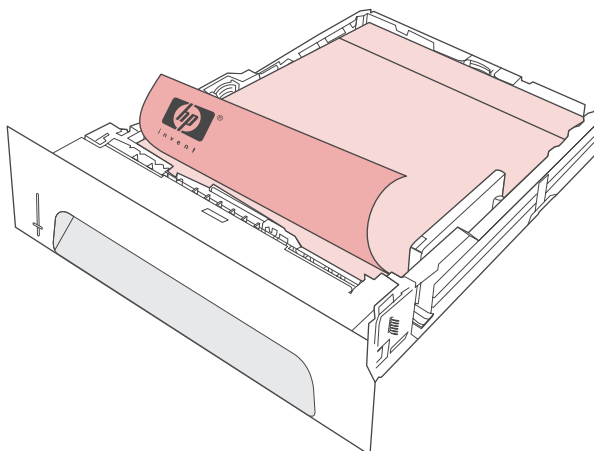
Printing on letterhead, prepunched, or preprinted paper (single-sided)

When printing letterhead, prepunched, or preprinted paper, it is important to orient the paper correctly. Follow the guidelines in this section for printing on one side only. For duplexing guidelines, see [Printing on both sides \(duplexing\)](#).

Tray 1 orientation: print-side up, top edge toward the printer.



Tray 2 or tray 3 orientation: print-side down, top edge toward you.



NOTE

When **Alternative Letterhead** mode is enabled in the printer driver, and **Letterhead** or **Preprinted** is selected as the media type, you must orient the media for two-sided (duplex) printing.

Guidelines for printing on letterhead or preprinted forms

- Do not use letterhead paper that is printed with low-temperature inks, such as those used in some types of thermography.
- Do not use raised or embossed letterhead.
- The printer uses heat and pressure to fuse toner to the paper. Make sure that any colored paper or preprinted forms use inks that are compatible with this fusing temperature (200°C or 392°F for 0.1 second).

Printing on both sides (duplexing)

You can print on both sides of a sheet of paper (called duplexing or two-sided printing) in two ways—automatic and manual. The following paper sizes are supported for automatic duplexing: Letter, A4, Legal, and 8.5 x 13 inches. Manual duplexing supports all paper sizes.

- **Automatic duplexing:** The built-in, automatic duplexer is included only with the HP LaserJet 2420d, 2420dn, and 2430dtn printer models.
- **Manual duplexing:** All printer models are capable of manual duplex printing. The printer prints the first side of each page, waits for you to reinsert the paper into the printer, and then prints the second side of each page. Other documents cannot be printed while the printer waits for you to insert the paper for the second side to be printed.

Even if the printer includes a built-in duplexer, manual duplexing is necessary for the following situations:

- When duplexing paper other than the supported sizes or weights—for example, paper heavier than 105 g/m² (28 lb) or very thin paper.
- When you select **Straight Paper Path** in the printer driver

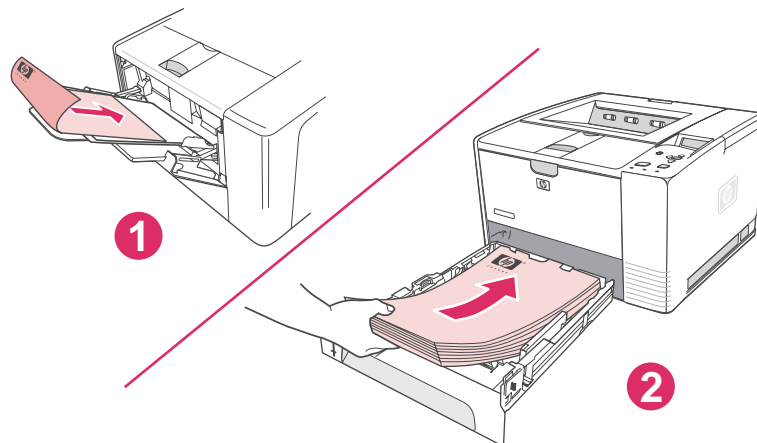
CAUTION

Do not print on both sides of labels, transparencies, or vellum. Damage to the printer and jams might result.

Paper orientation for printing on both sides

Print on the second side of the sheet of paper first. The paper needs to be oriented as shown in the following illustration.

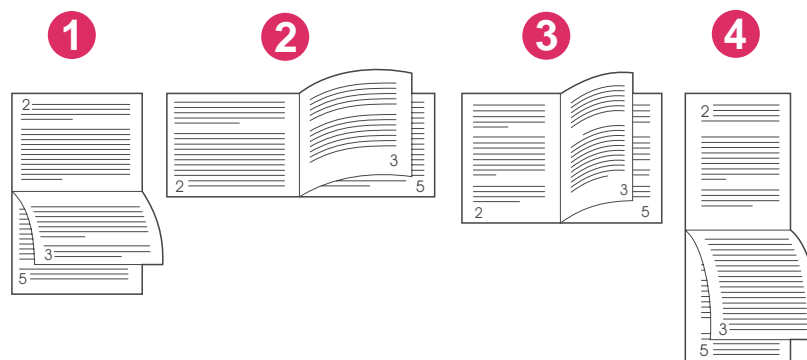
- For tray 1, load the first side facing down with the bottom, short edge toward the printer.
- For all other trays, load the first side facing up with the top, short edge toward the printer.



- 1 Tray 1
- 2 All other trays

Layout options for printing on both sides

The following illustration shows the four print-orientation options. These options are available when **Print on Both Sides** is selected on the **Finishing** tab in the printer driver.



1. Long-edge landscape*	This layout is often used in accounting, data processing, and spreadsheet programs. Every other printed image is oriented upside-down. Facing pages are read continuously from top to bottom.
2. Short-edge landscape	Each printed image is oriented right-side-up. Facing pages are read from top to bottom on the left page, then from top to bottom on the right page.
3. Long-edge portrait	This is the default printer setting, and the most common layout used, with every printed image oriented right-side-up. Facing pages are read from top to bottom on the left page, then from top to bottom on the right page.
4. Short-edge portrait*	This layout is often used with clipboards. Every other printed image is oriented upside-down. Facing pages are read continuously from top to bottom.

* When using Windows drivers, select **Flip Pages Up** to get the designated binding options.

To duplex by using the built-in duplexer

The built-in duplexer is included only with the HP LaserJet 2420d, 2420dn, and 2430dtn models.

1. Insert enough paper into one of the trays to accommodate the print job. If you are loading special paper such as letterhead, load it in one of the following ways:
 - For tray 1, load the letterhead paper with the front side down, bottom-edge first.
 - For all other trays, load the letterhead paper with front side facing up, and the top edge toward the back of the tray.

CAUTION

Do not load paper that is heavier than 105 g/m² (28 lb bond). Jamming could result.

2. Open the printer driver (see [Changing the settings for a print job](#)).
3. On the **Finishing** tab, select **Print on Both Sides**.

4. Click **OK**.
5. Send the print job to the printer.

NOTE

The paper you are printing on will partially come out of the top output bin during the duplexing. Do not pull on the paper until duplexing is complete. During duplexing, the duplexer will not function if the rear output bin is open.

To duplex manually

1. Insert enough paper into one of the trays to accommodate the print job. If you are loading special paper such as letterhead, load it in one of the following ways:
 - For tray 1, load the letterhead paper with the front side down, bottom-edge first.
 - For all other trays, load the letterhead paper with first side up, top edge toward the back of the tray.
2. Open the printer driver (see [Changing the settings for a print job](#)).
3. On the **Finishing** tab, select **Print on Both Sides**.
4. Click **OK**.
5. Send the print job to the printer.
6. Go to the printer. Remove any blank paper that is in tray 1. Insert the printed stack with the blank side up, with the top-edge feeding into the printer **first**. You **must** print the second side from tray 1.
7. If prompted by a message at the control panel-display, press ✓ (**SELECT** button).

NOTE

If the number of total sheets exceeds the tray 1 capacity for manual duplex jobs, you must repeat steps 6 and 7 each time that paper is inserted, until the duplexing job is complete.

Canceling a print job

You can cancel a print job from a software program or a print queue, or by pressing the **STOP** button on the printer control panel.

- If the printer has not started printing, first try to cancel the job within the software program that sent the print job.
- If the print job is waiting in a print queue or print spooler such as the Printers group on a Windows computer or Print Monitor on a Macintosh computer, delete the job there.
- If the print job is already printing, press the **STOP** button. The printer will finish printing any pages that are already moving through the printer and delete the rest of the print job.

If the control-panel status lights continue to cycle after a job has been canceled, the computer is still sending the job to the printer. Either delete the job from the print queue or wait until the computer has finished sending data (the printer will return to the ready state, with the Ready light on).

Pressing **STOP** cancels only the current job in the printer. If more than one print job is in printer memory, **STOP** must be pressed once for each job.

Using the printer driver

The printer driver provides access to the printer features and allows the computer to communicate with the printer. This section provides instructions for printing when setting options are set from the printer driver.

If possible, try to set printing features from the software program in which you are working or from the Print dialog box. You can set the printer features this way for most Windows and Macintosh software programs. If a setting is not available in the software program or printer driver, you must set it at the printer control panel.

For more information about printer-driver features, see the printer-driver online Help. For more information about printing from a specific software program, see the documentation for the program.

NOTE

Printer-driver settings override control panel settings. Software program settings override both printer-driver settings and control panel settings.

Changing the settings for a print job

If you want printing settings to be used only in the software program you are using, change the settings from the program. After you quit the program, the printer settings return to the defaults that are configured in the printer driver.

To change print settings for a print job on Windows computers

1. In the software program, click **File**.
2. Click **Print**.
3. Click **Setup** or click **Properties**. (The options might be different for your program.)
4. Change the print settings.
5. When you are finished, click **OK**.

To change print settings for a print job on Macintosh computers

1. In the software program, click **File**.
2. Click **Print**.
3. In the dialog box that appears, select the print settings that you want to change and make the changes.
4. When you are finished, click **OK**.

Changing default settings

If you want printing settings to be used in all software programs you use on the computer, change the default settings in the printer driver.

Choose the procedure for your operating system:

- [To change default settings in Windows 98 and Windows Me](#)
- [To change default settings in Windows NT 4.0](#)

- [To change default settings in Windows 2000, Windows XP, and Windows Server 2003](#)
- [To change default settings in Macintosh operating systems](#)

To change default settings in Windows 98 and Windows Me

1. Click the **Start** button.
2. Click **Settings**.
3. Click **Printers**.
4. Right-click the HP LaserJet 2400 series printer icon.
5. Click **Properties**.
6. Change any of the settings on the tabs. These settings are now the defaults for the printer.
7. Click **OK** to save your settings and to close the printer driver.

To change default settings in Windows NT 4.0

1. Click the **Start** button.
2. Click **Settings**.
3. Click **Printers**.
4. Right-click the HP LaserJet 2400 series series printer icon.
5. Click **Document Defaults**.
6. Change any of the settings on the tabs. These settings are now the defaults for the printer.
7. Click **OK** to save your settings and to close the printer driver.

To change default settings in Windows 2000, Windows XP, and Windows Server 2003

1. Click the **Start** button.
2. Click **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP and Windows Server 2003).
4. Right-click the HP LaserJet 2400 series printer icon.
5. Click **Properties**.
6. On the **Advanced** tab, click **Printing Defaults**.
7. Change any of the settings on the tabs. These settings are now the defaults for the printer.
8. Click **OK** to return to the **Advanced** tab.
9. Click **OK** to save your settings and to close the printer driver.

To change default settings in Macintosh operating systems

Depending on the Macintosh operating system version that you have, use either the Apple Desktop Printer Utility, the Print Center, or the Print Setup Utility to change printer driver defaults.

Using printer-driver features

This section provides instructions for common printing features that are controlled through the printer driver.

- [Printing watermarks](#)
- [Printing multiple pages on one sheet of paper](#)
- [Setting a custom paper size](#)
- [Using EconoMode \(draft\) printing](#)
- [Selecting print-quality settings](#)
- [Using reduce/enlarge options](#)
- [Selecting a paper source](#)
- [Printing a cover, a different first or last page, or a blank page](#)

Printing watermarks

A watermark is a marking, such as "Top Secret," "Draft," or someone's name, printed in the background of selected pages in a document.

NOTE

If you are using Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003 you must have administrator privileges to create watermarks.

To print a watermark on Windows computers (all versions)

1. Open the printer driver (see [Changing the settings for a print job](#)).
2. On the **Effects** tab, select a watermark from the **Watermarks** drop-down list. To edit or create a watermark, click **Edit**.
3. Click **OK**.

To print a watermark on Macintosh computers

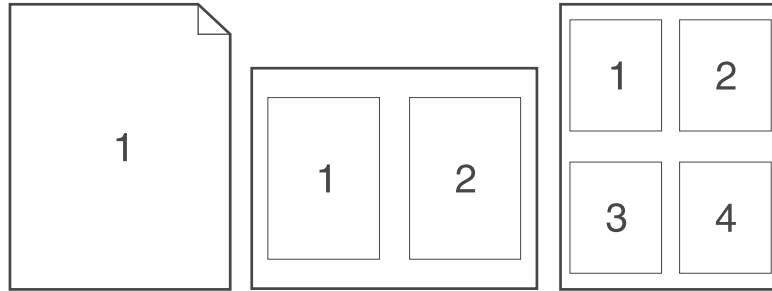
Select **Custom** and specify the text that you want, depending on your printer-driver version.

NOTE

Watermarks are supported only for Mac OS 9.x. Watermarks are not supported for Mac OS X V10.1 and later.

Printing multiple pages on one sheet of paper

You can print more than one document page on a single sheet of paper (this is sometimes called 2-up, 4-up, or n-up printing). The pages will appear decreased in size and arranged on the sheet. You can specify that up to 16 pages are to be printed on a single sheet. This feature provides a cost-effective and environmentally friendly way to print draft pages, especially when combined with duplex printing (see [Printing on both sides \(duplexing\)](#)).



To print multiple pages on one side of a sheet of paper on Windows computers (all versions)

1. Open the printer driver (see [Changing the settings for a print job](#)).
2. On the **Finishing** tab, select the number of pages per sheet from the **Pages per sheet** drop-down menu.
3. If you want borders around the pages, click **Print Page Borders**.
4. Select the page order from the **Page Order** drop-down list.
5. Click **OK**.

Setting a custom paper size

Use the custom paper feature to print on paper sizes other than standard sizes.

To set a custom paper size on Windows computers

1. Open the printer driver (see [Changing the settings for a print job](#)).
2. On the **Paper/Quality** tab, click **Custom**.
3. Specify the custom width and height.
4. Click **Close**.
5. Click **OK**.

To set a custom paper size on Macintosh computers

For Mac OS 9

1. On the **File** menu, select **Page Setup**.
2. From the **Page Attributes** drop-down menu, select **Custom Page Size**.
3. Click **New** to create a named custom page size. The new custom page is automatically added to the **Page Size** menu in **Page Setup**.

For Mac OS X

1. On the **File** menu, select **Page Setup**.
2. On the **Settings** drop-down menu, click **Page Attributes**, and then click **Custom Paper Size**.
3. Click **New**, and type in a name for the custom paper size.
4. Type the height and width for the custom paper size. Click **Save**.
5. On the **Settings** drop-down menu, click **Page Attributes**. Make sure that the **Format for** drop-down menu is set for **Any Printer**.
6. In the **Page Attributes** window, click **Paper Size**, and then select the new custom paper size. Verify that the dimensions are correct.
7. Click **OK**.

Using EconoMode (draft) printing

Use EconoMode (draft) printing to print with less toner on each page. Selecting this option might extend the life of your print cartridge and reduce your cost per page, but will reduce print quality.

HP does not recommend full-time use of EconoMode. If Economode is used full-time when the average toner coverage is significantly less than five percent, it is possible that the toner supply will outlast the mechanical parts in the print cartridge. If print quality begins to degrade under these circumstances, you will need to install a new print cartridge, even if toner remains in the cartridge,

To use EconoMode (draft) printing on Windows computers

1. Open the printer driver (see [Changing the settings for a print job](#)).
2. On the **Paper/Quality** tab, click **EconoMode**.
3. Click **OK**.

Selecting print-quality settings

If you need advanced print quality, you can select from custom settings.

Resolution options

- **Best Quality** - use ProRes 1200 for the best print quality.
- **Faster Printing** - use FastRes 1200 as an alternative resolution for complex graphics or faster output.
- **Custom** - use this option to specify print-quality settings.

NOTE

Changing resolution can change the formatting of your text.

To select print-quality settings on Windows computers

1. Open the printer driver. See [Changing the settings for a print job](#).
2. On the **Paper/Quality** tab, select the resolution or print-quality settings that you want from the **Print Quality** drop-down menu.
3. Click **OK**.

Using reduce/enlarge options

Use the reduce/enlarge options to scale your document to a percentage of its normal size. You can also choose to scale your document to fit on any size of paper that the printer supports.

To set reduce/enlarge options on Windows computers

1. Open the printer driver. See [Changing the settings for a print job](#).
2. On the **Effects** tab, click **% of Normal Size**.
3. Use the number box or slider scale to reduce or enlarge the scale.
4. Click **OK**.

Selecting a paper source

If your software program supports printing paper by source, make the selections from the program. Program settings override printer-driver settings.

To select a paper source on Windows computers

1. Open the printer driver. See [Changing the settings for a print job](#).
2. On the **Paper/Quality** tab, select the source from the **Source is** drop-down list.
3. Click **OK**.

To select a paper source on Macintosh computers

For Mac OS 9: Select a paper source from the **General** options in the printer driver.

For Mac OS X: Click **File**, then click **Print**, and then click **Paper Feed**.

Printing a cover, a different first or last page, or a blank page

Use the following procedure to print the covers of a document on a different media type than the rest of the document or to print the first or last page of a document on different media. For example, to print the first page of a document on letterhead paper and the rest on plain paper, or to print a cover on card stock and the subsequent pages on plain paper. You can also use this feature to insert blank pages between documents when printing several copies.

This option might not be available in all printer drivers.

To print covers or different pages on Windows computers

NOTE

This procedure changes the printer's settings for one print job. To change the printer's default settings, see [Changing default settings](#).

1. Open the printer driver (see [Changing the settings for a print job](#)).
2. On the **Paper/Quality** tab, click **Use different paper/Covers**.
3. To print covers or to insert a blank page between documents, select **Front Cover** or **Back Cover** from the drop-down list. Click **Add a Blank or Preprinted Cover**. Select the **Source is** and **Type is** for the cover or blank page. The blank page can be either a front cover or a back cover. Click **OK**.
4. To print a different first or last page, select **First Page**, **Other Pages**, or **Last Page** from the drop-down list. Select the **Source is** and **Type is** for the different pages. Click **OK**.

To print covers or different pages on Macintosh computers

For Mac OS 9: In the **Print** dialog box, select **First from** and **Remaining from**.

For Mac OS X: Click **File**, then click **Print**, and then click **Paper Feed**.

Using job-storage features

The printer supports two distinct job-storage features that you can use to initiate printing from the printer control panel after the print job is sent from the computer:

- Proof and hold jobs
- Private jobs

Make sure that you identify your jobs in the printer driver before printing. Using default names might override previous jobs that have the same default name or cause the job to be deleted.

NOTE

The job-storage features require 48 MB of RAM. For printer models that have less than 48 MB of RAM, you can add memory so that they can support the features, see [Memory](#). If you turn the printer power off, all quick copy, proof and hold, and private jobs are deleted. A job can also be deleted at the printer control panel.

Proofing and holding a job

The proof and hold feature provides a quick and easy way to print one copy of a job for proofing before printing the additional copies.

NOTE

If you turn the printer power off, all quick copy, proof and hold, and private jobs are deleted.

To print the remaining copies of a held job

1. Press ✓ (**SELECT** button) to open the menus.
2. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **RETRIEVE JOB**, and then press ✓ (**SELECT** button).
3. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the user name, and then press ✓ (**SELECT** button).
4. Use ▲ (**UP** arrow) or ▼ (**DOWN** button) to scroll to the user or job name, and then press ✓ (**SELECT** button).
5. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **PRINT**, and then press ✓ (**SELECT** button).
6. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the number of copies, and then press ✓ (**SELECT** button).

Deleting a held job

When you send a proof and hold job, the printer automatically deletes your previous proof and hold job. If no proof and hold job already exists with that job name, and the printer needs additional space, the printer might delete other proof and hold jobs starting with the oldest one.

NOTE

If you turn the printer power off, all quick copy, proof and hold, and private jobs are deleted. A held job can also be deleted at the printer control panel.

To delete a held job

1. Press ✓ (**SELECT** button) to open the menus.
2. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to RETRIEVE JOB, and then press ✓ (**SELECT** button).
3. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the user name, and then press ✓ (**SELECT** button).
4. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the user or job name, and then press ✓ (**SELECT** button).
5. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to DELETE, and then press ✓ (**SELECT** button).

Printing a private job

Use the private printing feature to specify that a job is not printed until you release it by typing a four-digit personal identification number (PIN) at the printer control panel. You specify the PIN in the printer driver, and it is sent to the printer as part of the print job.

To specify a private job

To specify in the driver that a job is private, select the **Private Job** option and type a 4-digit PIN.

To print a private job

1. Press ✓ (**SELECT** button) to open the menus.
2. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to RETRIEVE JOB, and then press ✓ (**SELECT** button).
3. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the user name, and then press ✓ (**SELECT** button).
4. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the user or job name, and then press ✓ (**SELECT** button).
5. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to PRINT. A lock symbol appears next to PRINT. Press ✓ (**SELECT** button).
6. You are prompted to type the PIN number. Use ▲ (**UP** button) or ▼ (**DOWN** button) to change the first number of the PIN, and then press ✓ (**SELECT** button). An **asterisk (*)** appears in place of the number. Repeat these steps to change the remaining three numbers of the PIN.
7. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the number of copies, and then press ✓ (**SELECT** button).

Deleting a private job

A private job is automatically deleted after the user releases it for printing, unless the user selects the **Stored Job** option in the printer driver.

NOTE

If you turn the printer power off, all quick copy, proof and hold, and private jobs are deleted. A private job can also be deleted at the printer control panel before it is ever printed.

To delete a private job

1. Press ✓ (**SELECT** button) to open the menus.
2. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to RETRIEVE JOB, and then press ✓ (**SELECT** button).
3. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the user name, and then press ✓ (**SELECT** button).
4. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the user or job name, and then press ✓ (**SELECT** button).
5. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to DELETE, and then press ✓ (**SELECT** button). (A lock symbol appears next to DELETE.)
6. You are prompted to type the PIN number. Use ▲ (**UP** button) or ▼ (**DOWN** button) to change the first number of the PIN, and then press ✓ (**SELECT** button). An **asterisk (*)** appears in place of the number. Repeat these steps to change the remaining three numbers of the PIN.

3

Managing and maintaining the printer

This chapter contains information about these topics:

- [Using the embedded Web server](#)
- [Using HP Web Jetadmin software](#)
- [Using the HP Toolbox](#)
- [Uninstalling the HP Toolbox](#)
- [Managing and configuring printer drivers](#)
- [Configuring e-mail alerts](#)
- [Setting the real-time clock](#)
- [Checking the printer configuration](#)
- [Managing the print cartridge](#)
- [Cleaning the printer](#)

Using the embedded Web server

Use the embedded Web server to view printer and network status and to manage printing functions from your computer instead of from the printer control panel. The following are examples of what you can do using the embedded Web server:

- View printer-control status information.
- Set the type of media that is loaded in each tray.
- Determine the remaining life for all supplies and order new ones.
- View and change tray configurations.
- View and change the printer control-panel menu configuration.
- View and print internal pages.
- Receive notification of printer and supplies events.
- View and change network configuration.

The embedded Web server feature requires at least 48 MB of RAM and an HP Jetdirect print server in order to connect to your network.

To use the embedded Web server, you must have Microsoft Internet Explorer 5.01 or later or Netscape 6.2 or later for Windows, Mac OS, and Linux (Netscape only). Netscape Navigator 4.7 is required for HP-UX 10 and HP-UX 11. The embedded Web server works when the printer is connected to an IP-based network. The embedded Web server does not support IPX-based printer connections. You do not have to have Internet access to open and use the embedded Web server.

When the printer is directly connected to a computer, the embedded Web server is supported for Windows 98 and later. In order to use the embedded Web server with a direct connection, you must select the Custom installation option when you install the printer driver. Select the option to load the HP Toolbox. The proxy server is installed as part of the HP Toolbox software.

When the printer is connected to the network, the embedded Web server is automatically available.

Another option for access to the embedded Web server is the HP Printer Access Tool. The HP Printer Access Tool software provides a single point of access to the embedded Web server (EWS) for all of the networked printers in each user's local Printers folder. By using a Web browser, users can view the supplies-status information, control print jobs, and manage product configuration through the EWS.

Opening the embedded Web server

1. In a supported Web browser on your computer, type the IP address for the printer. To find the IP address, print a configuration page. For more information about printing a configuration page, see [Configuration page](#).

NOTE

After you open the URL, you can bookmark it so that you can return to it quickly in the future.

2. The embedded Web server has three tabs that contain settings and information about the printer: the **Information** tab, the **Settings** tab, and the **Networking** tab. Click the tab that you want to view.
3. See the following sections for more information about each tab.

Information tab

The Information pages group consists of the following pages.

- **Device Status.** This page shows the printer status and shows the life remaining of HP supplies, with 0% representing that a supply is empty. The page also shows the type and size of print media set for each tray. To change the default settings, click **Change Settings**.
- **Configuration page.** This page shows the information that is found on the printer configuration page.
- **Supplies Status.** This page shows the life remaining of HP supplies, with 0% representing that a supply is empty. This page also provides supplies part numbers. To order new supplies, click **Order Supplies** in the **Other Links** area of the window. To visit any Web site, you must have Internet access.
- **Event log.** This page shows a list of all printer events and errors.
- **Device information.** This page also shows the printer network name, address, and model information. To change these entries, click **Device Information** on the **Settings** tab.
- **Control panel.** Click this button to view the current status of the printer control panel.

Settings tab

Use this tab to configure the printer from your computer. The **Settings** tab can be password protected. If this printer is networked, always consult with the printer administrator before changing settings on this tab.

The **Settings** tab contains the following pages.

- **Configure Device.** Configure all printer settings from this page. This page contains the traditional menus found on printers that use a control-panel display. These menus include **Information**, **Paper Handling**, and **Configure Device**.
- **Alerts.** Network only. Set up to receive e-mail alerts for various printer and supplies events.
- **Email.** Network only. Used in conjunction with the Alerts page to set up incoming and outgoing e-mail.
- **Security.** Set a password that must be typed in order to gain access to the **Settings** and **Networking** tabs. Turn on and off certain features of the EWS.
- **Other Links.** Add or customize a link to another Web site. This link is shown in the **Other Links** area on all embedded Web server pages. These permanent links always appear in the **Other Links** area: **HP Instant Support**, **Order Supplies**, and **Product Support**.
- **Device Information.** Name the printer and assign an asset number to it. Type the name and e-mail address for the primary contact who will receive information about the printer.
- **Language.** Determine the language in which to show the embedded Web server information.
- **Time Services.** Set the printer to retrieve the date and time from a network server at regular intervals.

Networking tab

The network administrator can use this tab to control network-related settings for the printer when it is connected to an IP-based network. This tab will not appear if the printer is directly connected to a computer, or if the printer is connected to a network with anything other than an HP Jetdirect print server.

Other links

This section contains links that connect you to the Internet. You must have Internet access in order to use any of these links. If you use a dial-up connection and did not connect when you first opened the embedded Web server, you must connect before you can visit these Web sites. Connecting might require that you close the embedded Web server and reopen it.

- **HP Instant Support.** Connects you to the HP Web site to help you find solutions. This service analyzes your printer error log and configuration information to provide diagnostic and support information specific to your printer.
- **Order Supplies.** Click this link to connect to an ordering Web site and order genuine HP supplies, such as print cartridges and media.
- **Product Support.** Connects to the support site for the HP LaserJet 2400 series printer. Then, you can search for help regarding general topics.

Using HP Web Jetadmin software

HP Web Jetadmin is a Web-based software solution for remotely installing, monitoring, and troubleshooting network-connected peripherals. The intuitive browser interface simplifies cross-platform management of a wide range of devices, including HP and non-HP printers. Management is proactive, allowing network administrators the ability to resolve printer issues before users are affected. Download this free, enhanced-management software at http://www.hp.com/go/webjetadmin_software.

To obtain plug-ins to HP Web Jetadmin, click **plug-ins**, and then click the **download** link that is next to the name of the plug-in that you want. The HP Web Jetadmin software can automatically notify you when new plug-ins are available. On the **Product Update** page, follow the directions to automatically connect to the HP Web site.

If installed on a host server, HP Web Jetadmin is available to any client through a supported Web browser, such as Microsoft Internet Explorer 6.0 for Windows or Netscape Navigator 7.1 for Linux. Browse to the HP Web Jetadmin host.

NOTE

Browsers must be Java-enabled. Browsing from an Apple PC is not supported.

Using the HP Toolbox

HP Toolbox is a Web application that you can use for the following tasks:

- Check the printer status.
- Configure the printer settings.
- View troubleshooting information.
- View online documentation.

You can view the HP Toolbox when the printer is directly connected to your computer or when it is connected to the network. You must perform a complete software installation in order to use the HP Toolbox.

NOTE

You do not have to have Internet access to open and use the HP Toolbox. However, if you click a link in the **Other Links** area, you must have Internet access to go to the site that is associated with the link. See [Other links](#) for more information.

Supported operating systems

The HP Toolbox is supported for the following operating systems:

- Windows 98, 2000, Me, XP, and Server 2003
- Mac OS X, Version 10.2 or higher

Supported browsers

To use the HP Toolbox, you must have one of the following browsers:

Windows

- Microsoft Internet Explorer 5.5 or higher
- Netscape Navigator 7.0 or higher
- Opera Software ASA Opera 6.05 or higher

Macintosh (OS X only)

- Microsoft Internet Explorer 5.1 or higher
- Netscape Navigator 7.0 or higher

All pages can be printed from the browser.

To view the HP Toolbox

1. Open the HP Toolbox in one of these ways:
 - On the Windows desktop, double-click the HP Toolbox icon.
 - From the Windows **Start** menu, click **Programs**, and then click **HP Toolbox**.
 - For Macintosh OS X, on the hard drive, click **Applications**, and then click the **Utilities** folder. Double-click the **HP Toolbox icon**.

NOTE

After you open the URL, you can bookmark it so that you can return to it quickly in the future.

2. The HP Toolbox opens in a Web browser. The HP Toolbox software contains the following sections:
 - [Status tab](#)
 - [Troubleshooting tab](#)
 - [Alerts tab](#)
 - [Documentation tab](#)
 - [Device Settings window](#)
 - [Toolbox links](#)
 - [Other links](#)

Status tab

The **Status** tab has links to the following main pages:

- **Device Status.** View printer status information. This page indicates printer conditions such as a jam or an empty tray. After you correct a problem with the printer, click the **Refresh** button to update the device status.
- **Supplies Status.** View detailed supplies status such as the percent of life remaining in the print cartridge and the number of pages that have been printed with the current print cartridge. This page also has links to order supplies and to find recycling information.
- **Print Info.** Print the configuration page and various other information pages that are available for the printer, such as the supplies status page, the demo page, and the menu map.

Troubleshooting tab

The **Troubleshooting** tab has links to the following main pages:

- **Print Quality Tools.** View general troubleshooting information, view information about troubleshooting print-quality problems, and calibrate the printer to maintain color print quality.
- **Maintenance.** View information about managing printer supplies, view information about replacing the print cartridges, and view information about replacing other printer supplies.
- **Error Messages.** View information about error messages.
- **Paper Jams.** View information on locating and clearing jams.

- **Supported Media.** View information about media that the printer supports, view information about configuring the trays, and view information about solving problems that are related to print media.
- **Printer Pages.** Print various pages that are useful for troubleshooting printer problems including the configuration page, the supplies page, the event log page, and the usage page.

Alerts tab

Use the **Alerts** tab to configure the printer to automatically notify you of printer alerts. The **Alerts** tab has links to the following main pages:

- Set up status alerts
- Administrative settings

Set up status alerts page

On the Set up status alerts page, you can choose to turn alerts on or off, specify when the printer should send an alert, and select from two different types of alerts:

- Pop-up message
- System tray icon

Click **Apply** to activate the settings.

Administrative settings page

On the Administrative settings page, you can set the frequency of how often the HP Toolbox checks for printer alerts. Three settings are available:

- **Less Often.** The HP Toolbox checks for alerts once per minute (every 60 seconds).
- **Normal.** The HP Toolbox checks for alerts twice per minute (every 30 seconds).
- **More Often.** The HP Toolbox checks for alerts twenty times per minute (every 3 seconds).

NOTE

If you want to reduce network input/output (I/O) traffic, reduce the frequency at which the printer checks for alerts.

Documentation tab

The **Documentation** tab contains links to these information sources:

- **Install Notes.** Provides specific installation instructions and information regarding your product before you install and use the printing system.
- **User Guide.** Contains the information about the printer usage, warranty, specifications, and support that you are currently reading. The user guide is available in both HTML and PDF format.

Device Settings window

When you click the **Device Settings** button, the embedded Web server opens in a new window. See [Using the embedded Web server](#).

Toolbox links

The **toolbox Links** item at the left of the screen provides links to the following options:

- **Select a device.** Select from all of the HP Toolbox-enabled devices.
- **View current alerts.** View the current alerts for all printers that have been set up. (You must be printing to view the current alerts.)
- **Text only page.** View HP Toolbox as a site map with links to all of the individual pages within HP Toolbox and the **Device Settings** window.

Other links

This section contains links that connect you to the Internet. You must have Internet access in order to use any of these links. If you use a dial-up connection and did not connect when you first opened the HP Toolbox, you must connect before you can visit these Web sites. Connecting might require that you close the HP Toolbox and reopen it.

- **HP instant support.** Connects to the HP instant support page for the product.
- **Product Registration.** Connects to the HP product registration Web site.
- **Product Support.** Connects to the support site for the printer. Then, you can search for help with a specific problem.

Uninstalling the HP Toolbox

This section explains how to uninstall the HP Toolbox.

To uninstall the HP Toolbox by using the Windows desktop shortcut

1. Click **Start**.
2. Point to **Programs**.
3. Point to **Hewlett-Packard** or to the HP LaserJet 2400 series program group, and then click **Uninstall hp LaserJet Toolbox**.
4. Follow the onscreen instructions.

To uninstall the HP Toolbox by using Add/Remove Programs in the Windows control panel

1. Click **Start**.
2. Click **Control Panel**.

NOTE

In some versions of Windows, point to **Settings**, and then click **Control Panel**.

3. Double-click **Add or Remove Programs**.
4. Select **hp LaserJet Toolbox** from the list of programs, and then follow the onscreen instructions.

Managing and configuring printer drivers

Your system or network administrator can use the driver management and configuration solution to configure printer drivers before you install and deploy them within your environment. This is helpful when you configure printer drivers for multiple workstations or printers that share the same configuration.

When you preconfigure your printer driver to match the printer hardware, you can gain access to all of the printer accessories through the driver. You can also configure most driver feature settings. Five of the driver features can be "locked." This means that you can choose not to allow users to change the duplex, print color as gray, input tray, output tray, and media type settings. (Some features might not apply to all printers. For example, some printers do not include color printing or duplexing.)

The driver management and configuration solution saves time and reduces management costs. Previously, if an administrator wanted to configure printer drivers, the configuration had to be completed at each client workstation. Because the driver management and configuration solution offers multiple configuration options, administrators can create a single configuration, in a central location, that best fits their software installation and deployment strategy.

The driver management and configuration solution also gives administrators more control over their printing environment, because they can deploy drivers that share the same configuration across an entire organization. They can use the "lock" feature to support organization initiatives. For example, if a printer includes a duplexer, locking the duplex setting ensures that all print jobs are printed on two sides to save paper. All of the controls can be deployed from a single computer.

Two methods are available:

- HP Web Jetadmin software plug-in
- Customization utility

Regardless of the configuration method that is used, one configuration can be shared by all printer drivers for a given printer model with one pass through either the plug-in or the utility. The single configuration provides support for multiple operating systems, printer driver languages, and localized language versions.

A single configuration file is associated with all supported drivers, and can be modified by using either the plug-in or the utility.

HP Web Jetadmin software plug-in

A driver management and configuration plug-in is available for the HP Web Jetadmin software. You can use the plug-in to configure the printer drivers before installation and deployment. This method for managing and controlling printer drivers provides a complete, end-to-end solution that you can use to set up and configure the printer, the print path (queue), and the client computers or workstations. The following activities are included in the workflow:

- Discover and configure the printer(s).
- Discover and configure the print path on the server(s). You can have multiple servers configured in a batch, or multiple printers (of the same model type) using a single server.
- Obtain the printer driver(s). You can install multiple drivers for each print queue that is connected to a server in environments that support multiple operating systems.
- Run the configuration editor (the editor is not supported for some older drivers).

- Deploy the configured printer drivers to the server(s).
- Instruct the end-users to connect to the print server. The configured driver for their operating system is automatically deployed to their computer.

Administrators can use the HP Web Jetadmin software plug-in to deploy configured printer drivers using a silent, batch, or remote process. Obtain the HP Web Jetadmin software plug-in from http://www.hp.com/go/webjetadmin_software.

Customization utility

Administrators can use a customization utility to create a custom installation package that includes only the components that are needed within a specific organization or operating environment. The customization utility is available in two places:

- On the CD-ROM that comes with the printer (the utility is one of the installer options)
- In the printing system software that is available for downloading from the HP Web site for the printer model.

The installation procedure prompts the administrator to select components from the contents of the printing system. During this process, the administrator is prompted to configure the printer driver settings, if the selected drivers support preconfiguration. The process yields a customized installation package that the administrator can deploy to install the configured printer drivers on the client computers and workstations. The customization utility supports silent and batch operations.

Configuring e-mail alerts

You can use HP Web Jetadmin or the embedded Web server to configure the system to alert you to problems with the printer. The alerts take the form of e-mail messages to the e-mail account or accounts that you specify.

You can configure the following information:

- The device that you want to monitor (in this case, the printer)
- What alerts are to be received (for example, alerts for jams, paper out, **ORDER CARTRIDGE, REPLACE CARTRIDGE**, and **cover open**)
- The e-mail account to which the alerts should be forwarded

Utility	Information source
HP Web Jetadmin	<ul style="list-style-type: none">• See Using HP Web Jetadmin software for general information about HP Web Jetadmin.• See HP Web Jetadmin online Help for details about alerts and how to set them up.
Embedded Web server	<ul style="list-style-type: none">• See Using the embedded Web server for general information about the embedded Web server.• See the Embedded Web server online Help for details about alerts and how to set them up.

Setting the real-time clock

Use the real-time clock feature to set the date and time settings. The date and time information is attached to stored print jobs, so you can identify the most recent versions of stored print jobs.

Setting the date and time

When setting the date and time you can set the date format, date, time format, and time.

Setting the date format

1. Press **MENU** to open the menus.
2. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **CONFIGURE DEVICE**, and then press ✓ (**SELECT** button).
3. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **SYSTEM SETUP**, and then press ✓ (**SELECT** button).
4. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **DATE/TIME**, and then press ✓ (**SELECT** button).
5. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **DATE FORMAT**, and then press ✓ (**SELECT** button).
6. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the desired format, and then press ✓ (**SELECT** button).
7. The settings are saved and the control panel returns to the **DATE/TIME** submenu.
8. Press **MENU** to exit the menu.

Setting the date

1. Press **MENU** to open the menus.
2. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **CONFIGURE DEVICE**, and then press ✓ (**SELECT** button).
3. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **SYSTEM SETUP**, and then press ✓ (**SELECT** button).
4. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **DATE/TIME**, and then press ✓ (**SELECT** button).
5. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **DATE**, and then press ✓ (**SELECT** button).
6. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the appropriate year, and then press ✓ (**SELECT** button).

NOTE

The order of modifying the **YEAR**, **MONTH**, and **DAY** depends upon the date format setting. **YEAR**, **MONTH**, or **DAY** could be the first selection.

7. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the appropriate month and then press ✓ (**SELECT** button).
8. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the appropriate day and then press ✓ (**SELECT** button).
9. The settings are saved and the control panel returns to the **DATE/TIME** submenu.
10. Press **MENU** to exit the menu.

Setting the time format

1. Press **MENU** to open the menus.
2. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **CONFIGURE DEVICE**, and then press ✓ (**SELECT** button).
3. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **SYSTEM SETUP**, and then press ✓ (**SELECT** button).
4. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **DATE/TIME**, and then press ✓ (**SELECT** button).
5. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **TIME FORMAT**, and then press ✓ (**SELECT** button).
6. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the desired time format, and then press ✓ (**SELECT** button).
7. The settings are saved and the control panel returns to the **DATE/TIME** submenu.
8. Press **MENU** to exit the menu.

Setting the time

1. Press **MENU** to open the menus.
2. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **CONFIGURE DEVICE**, and then press ✓ (**SELECT** button).
3. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **SYSTEM SETUP**, and then press ✓ (**SELECT** button).
4. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **DATE/TIME**, and then press ✓ (**SELECT** button).
5. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **TIME**, and then press ✓ (**SELECT** button).
6. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the appropriate hour, and then press ✓ (**SELECT** button).
7. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to the appropriate minute, and then press ✓ (**SELECT** button).
8. The settings are saved and the control panel returns to the **DATE/TIME** submenu.
9. Press **MENU** to exit the menu.

Checking the printer configuration

At the printer control panel, you can print pages that give details about the printer and its current configuration. The following information pages are described here:

- [Menu map](#)
- [Configuration page](#)
- [Supplies status page](#)
- [PS or PCL font list](#)

For a complete list of printer information pages, see the **INFORMATION** menu at the printer control panel (see [Information menu](#)).

Keep these pages nearby for troubleshooting. They are also useful if you contact HP Customer Care.

Menu map

Print the menu map to see the current settings for the menus and items that are available at the printer control panel.

To print a menu map

1. Press ✓ (**SELECT** button) to open the menus.
2. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **INFORMATION**, and then press ✓ (**SELECT** button).
3. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **PRINT MENU MAP**, and then press ✓ (**SELECT** button).

You might want to store the menu map near the printer for reference. The content of the menu map varies, depending on the options currently installed in the printer. (Many of these values can be overridden in the program or printer driver.)

For a complete list of control panel items and possible values, see [Control panel menus](#). To change a control panel setting, see [Changing printer-control-panel configuration settings](#).

Configuration page

Use the configuration page to view current printer settings, to help troubleshoot printer problems, or to verify installation of optional accessories, such as memory (DIMMs), trays, and printer languages.

NOTE

If an HP Jetdirect print server is installed, an HP Jetdirect configuration page prints as well. The IP address of the HP Jetdirect print server appears on this page.

To print a configuration page at the control panel

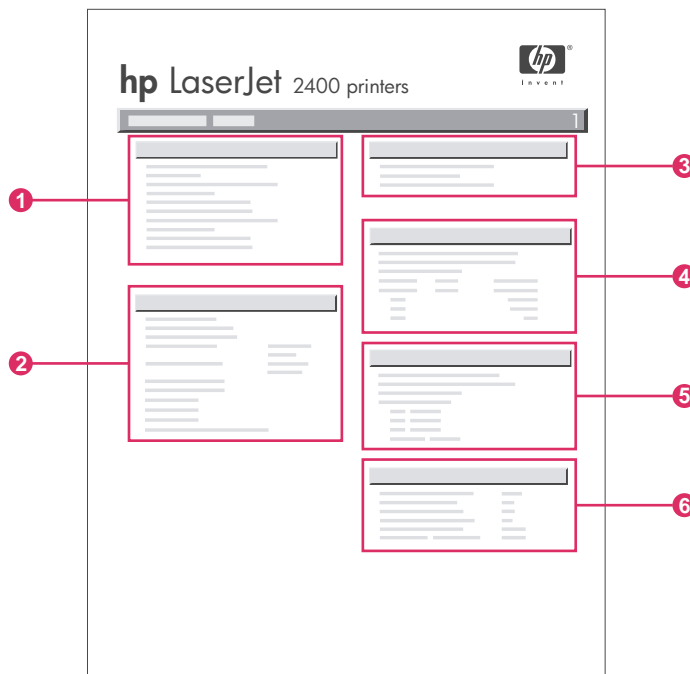
1. Press ✓ (**SELECT** button) to open the menus.
2. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **INFORMATION**, and then press ✓ (**SELECT** button).

3. Use ▲ (UP button) or ▼ (DOWN button) to scroll to **PRINT CONFIGURATION**, and then press ✓ (SELECT button).

An example of the configuration page follows. The content of the configuration page varies, depending on the options currently installed in the printer.

NOTE

You can also obtain configuration information in the embedded Web server or the HP Toolbox. For details, see [Using the embedded Web server](#) or see [Using the HP Toolbox](#).



1	Printer Information	Lists the model, serial number, page counts, and other information for the printer.
2	Installed Personalities and Options	Lists all printer languages that are installed (such as PS and PCL) and lists options that are installed in each DIMM slot and EIO slot.
3	Memory	Lists printer memory, PCL Driver Work Space (DWS), and resource saving information.
4	Event Log	Lists the number of entries in the event log, the maximum number of entries viewable, and the last three entries.
5	Security	Lists the status of the printer control panel lock, control panel password, and disk drive (if one is installed in the printer).
6	Paper Trays and Options	Lists the size settings for all trays and lists optional paper-handling accessories that are installed.

Supplies status page

Use the supplies status page to obtain information about the print cartridge that is installed in the printer, the amount of life left in the print cartridge, and the number of pages and jobs that have been processed.

NOTE

You can also obtain configuration information in the embedded Web server or the HP Toolbox. For details, see [Using the embedded Web server](#) or see [Using the HP Toolbox](#).

To print a supplies status page at the control panel

1. Press ✓ (**SELECT** button) to open the menus.
2. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **INFORMATION**, and then press ✓ (**SELECT** button).
3. Use ▲ (**UP** button) or ▼ (**DOWN** button) to scroll to **PRINT SUPPLIES STATUS PAGE**, and then press ✓ (**SELECT** button).



- 1 Information about the print cartridge, including estimated pages remaining
- 2 Information about ordering replacement supplies
- 3 Information about recycling supplies

PS or PCL font list

Use the font lists to see which fonts are currently installed in the printer. The font lists also show which fonts are resident on an optional hard disk accessory or flash DIMM.

To print a PS or PCL font list

1. Press ✓ (**SELECT** button) to open the menus.

2. Use ▲ (**Up** button) or ▼ (**Down** button) to scroll to **INFORMATION**, and then press ✓ (**Select** button).
3. Use ▲ (**Up** button) or ▼ (**Down** button) to scroll to **PRINT PS FONT LIST** or **PRINT PCL FONT LIST**, and then press ✓ (**Select** button).

The PS font list shows the PS fonts that are installed, and gives a sample of those fonts. The following information can be found on the PCL font list:

- **Font** gives the font names and samples.
- **Pitch/Point** indicates the pitch and point size of the font.
- **Escape Sequence** (a PCL programming command) is used to select the designated font. (See the legend at the bottom of the font list page.)

NOTE

For information about using printer commands to select a font with MS-DOS® programs, see [Selecting PCL 6 and PCL 5 fonts](#).

- **Font #** is the number used to select fonts at the printer control panel (not in the program). Do not confuse the font # with the font ID. The number indicates the CompactFlash slot where the font is stored.
 - **SOFT**: Downloaded fonts, which stay resident in the printer until other fonts are downloaded to replace them, or until the printer power is turned off.
 - **INTERNAL**: Fonts that permanently reside in the printer.
- **Font ID** is the number you assign to soft fonts when you download them through software.

Managing the print cartridge

This section provides information about HP print cartridges, their life expectancies, how to store them, and how to identify genuine HP supplies. Information also appears about non-HP print cartridges.

- [HP print cartridges](#)
- [Non-HP print cartridges](#)
- [Print-cartridge authentication](#)
- [Print-cartridge storage](#)
- [Print-cartridge life expectancy](#)
- [Checking the supply level](#)
- [Cartridge-low and cartridge-out conditions](#)

HP print cartridges

When you use a genuine HP print cartridge, you can obtain several types of information, such as the following:

- Amount of toner remaining
- Estimated number of pages remaining
- Number of pages printed

Non-HP print cartridges

Hewlett-Packard Company cannot recommend use of non-HP print cartridges, either new or remanufactured. Because they are not HP products, HP cannot influence their design or control their quality. Service or repair required as a result of using a non-HP print cartridge will **not** be covered under the printer warranty.

Using genuine HP supplies ensures the availability of all HP printing features.

Print-cartridge authentication

The printer will let you know if a print cartridge is not a genuine HP print cartridge when you insert it into the printer. If you believe that you purchased a genuine HP supply, visit us at <http://www.hp.com/go/anticounterfeit>.

Print-cartridge storage

Do not remove the print cartridge from its package until you are ready to use it.

Always store the print cartridge in the proper environment. The temperature should be between -20°C and 40°C (-4°F to 104°F). The relative humidity should be between 10% and 90%.

CAUTION

To prevent damage to the print cartridge, do not expose it to light for more than a few minutes.

Print-cartridge life expectancy

The life of the print cartridge depends on the amount of toner that print jobs require and the length of life for the components inside the cartridge. When printing text at 5% coverage (typical for a business letter), the HP print cartridge lasts an average of 6,000 (Q6511A) or 12,000 (Q6511X) pages.

At any time, you can verify life expectancy by checking the supply level, as described in [Checking the supply level](#).

Checking the supply level

You can check the supply (toner) level by using the printer control panel, the embedded Web server, HP Toolbox software, or HP Web Jetadmin.

To check the supply level by using the control panel

1. Press **MENU** to open the menus.
2. Use **▲** (**UP** button) or **▼** (**DOWN** button) to scroll to **INFORMATION**, and then press **✓** (**SELECT** button).
3. Use **▲** (**UP** button) or **▼** (**DOWN** button) to scroll to **PRINT SUPPLIES STATUS PAGE**, and then press **✓** (**SELECT** button). See [Supplies status page](#) for information about the supplies status page.

To check the supply level by using the embedded Web server

1. In your Web browser, type the IP address for the printer home page. This takes you to the printer status page. (See [Opening the embedded Web server](#).)
2. On the left side of the screen, click **Supplies Status**. This takes you to the supplies status page, which provides supply level information. (See [Supplies status page](#) for information about the supplies status page.)

To check the supply level by using the HP Toolbox software

You can configure HP Toolbox to notify you when the print cartridge is low. You can choose to receive alerts by e-mail or as a pop-up message or taskbar icon. To check the supplies status by using the HP Toolbox software, click the **Status** tab, then click **Supplies Status**.

To check the supply levels by using HP Web Jetadmin

In HP Web Jetadmin, select the printer device. The device status page shows supply-level information.

Cartridge-low and cartridge-out conditions

The printer alerts you if the print cartridge is low on toner or out of toner.

When the cartridge is low on toner or drum life

When the cartridge is low, the printer control panel shows the **ORDER CARTRIDGE** message. The message first appears when about 16% (6,000-page cartridge) or about 8% (12,000-page cartridge) of the life remains in the print cartridge. This percentage is set with the intent of providing approximately 2 weeks of typical use before the cartridge is depleted. You should have time to purchase a new cartridge before the old cartridge is depleted.

The default is for the printer to continue printing until the cartridge runs out, but you might prefer to have the printer stop instead of continuing when the **ORDER CARTRIDGE** message first appears—for example, if you want print quality to remain consistently high during print jobs, or if you do not want the cartridge to run out during a long print job. To configure the printer to stop, in the **CONFIGURE DEVICE** menu, under **SYSTEM SETUP**, set **CARTRIDGE LOW** to **STOP**. Then, when **REPLACE CARTRIDGE** appears, the printer will stop printing. You can resume printing by pressing ✓ (**SELECT** button) for each print job.

When the cartridge is out of toner or drum life

The **REPLACE CARTRIDGE** message appears in one of these situations:

- **When the print cartridge is out of toner.** If **CARTRIDGE OUT** is set to **CONTINUE** (in the **SYSTEM SETUP** submenu of the **CONFIGURE DEVICE** menu), the printer continues printing without interaction until the cartridge reaches the end of drum life. HP does not guarantee print quality after the **REPLACE CARTRIDGE** message first appears. Replace the print cartridge as soon as possible. (See [Ordering parts, accessories, and supplies](#).) The **REPLACE CARTRIDGE** message remains until you replace the print cartridge. If **CARTRIDGE OUT** is set to **STOP**, the printer stops printing until you replace the print cartridge or resume printing by configuring the printer to continue: In the **CONFIGURE DEVICE** menu, under **SYSTEM SETUP**, set **CARTRIDGE OUT** to **CONTINUE**.
- **When the drum life of the print cartridge is out.** You must replace the print cartridge to continue printing. No override is possible, even if toner remains in the cartridge. (See [Ordering parts, accessories, and supplies](#).) This situation occurs to protect the printer.

Cleaning the printer

Over time, particles of toner and paper accumulate inside the printer. This can cause print-quality problems during printing. Cleaning the printer eliminates or reduces these problems.

Clean the paper path and print-cartridge areas every time that you change the print cartridge or whenever print-quality problems occur. As much as possible, keep the printer from dust and debris.

Cleaning the outside

Clean the outside of the printer with a cloth that has been dampened with water.

CAUTION

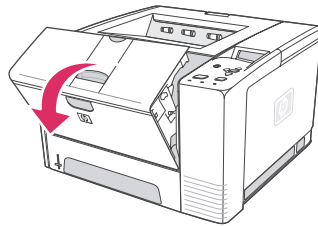
Do not use ammonia-based cleaners on or around the printer.

Cleaning the paper path and print-cartridge areas

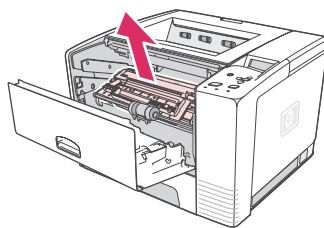
Over time, particles of toner and paper accumulate inside the printer. This can cause print-quality problems during printing. Cleaning the printer eliminates or reduces these problems.

To clean the inside of the printer

1. Turn the printer off and unplug the power cord.
2. Open the top cover.



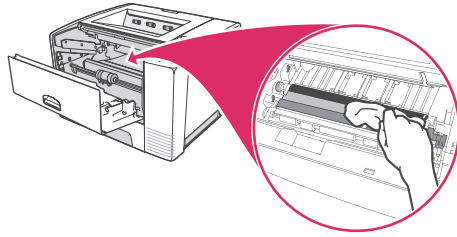
3. Remove the print cartridge.



CAUTION

To prevent damage to the print cartridge, do not expose it to light for more than a few minutes. Be careful not to touch the transfer roller (the black, rubber roller located underneath the print cartridge). Skin oils on the roller can cause print-quality problems.

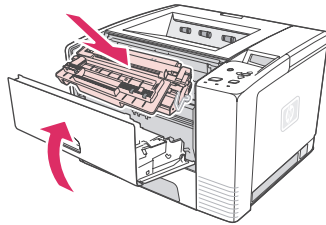
4. With a dry, lint-free cloth, wipe any residue from the paper path area and the print cartridge cavity.



5. Reinstall the print cartridge and close the top cover.

NOTE

If the print cartridge is difficult to reinstall, make sure that the registration plate has been flipped back down into position and that you have pushed the print cartridge firmly in place.



6. Plug in the power cable and turn the printer on.

Cleaning the fuser

Run the printer cleaning page to keep the fuser free of toner and paper particles that can sometimes accumulate. Accumulation of toner and particles can cause specks to appear on the front or back side of your print jobs.

To ensure optimum print quality, HP recommends that you use the cleaning page every time that you replace the print cartridge or on an automatic interval that you can set up.

The cleaning procedure takes about 2.5 minutes to complete. A **CLEANING** message appears on the printer control panel display while the cleaning is taking place.

To run the cleaning page

In order for the cleaning page to work properly, print the page on copier-grade paper (not bond, heavy, or rough paper).

1. If your printer model includes a duplexer, open the rear output bin.
2. Press **MENU** to open the menus.
3. Use **▲** (**UP** button) or **▼** (**DOWN** button) to scroll to **CONFIGURE DEVICE**, and then press **✓** (**SELECT** button).
4. Use **▲** (**UP** button) or **▼** (**DOWN** button) to scroll to **PRINT QUALITY**, and then press **✓** (**SELECT** button).
5. Use **▲** (**UP** button) or **▼** (**DOWN** button) to scroll to **CREATE CLEANING PAGE**, and then press **✓** (**SELECT** button).
6. Follow the instructions on the cleaning page to complete the cleaning process.

7. If your printer model includes a duplexer, close the rear output bin.

4

Problem solving

This troubleshooting information is organized to help you resolve printing problems. Choose the general topic or type of problem from the following list.

- [Troubleshooting flowchart](#)
- [Solving general printing problems](#)
- [Guidelines for using paper](#)
- [Printing special pages](#)
- [Clearing jams](#)
- [Understanding printer messages](#)
- [Correcting print-quality problems](#)
- [Troubleshooting network printing problems](#)
- [Troubleshooting common Windows problems](#)
- [Troubleshooting common Macintosh problems](#)
- [Troubleshooting common PostScript problems](#)

Troubleshooting flowchart

If the printer is not responding properly, use the flowchart to determine the problem. If the printer does not pass a step, follow the corresponding troubleshooting suggestions.

If you cannot resolve the problem after following the suggestions in this guide, contact an HP-authorized service or support provider. (See [HP customer care](#).)

NOTE

Macintosh users: For more troubleshooting information, see [Troubleshooting common Macintosh problems](#).

1 Does the control panel display read READY?

YES →	Go to step 2.			
NO ↓				
The display is blank, and the printer fan is off.	The display is blank, but the printer fan is on.	The display is in the wrong language.	The display shows garbled or unfamiliar characters.	A message other than READY appears on the printer control panel display.

<ul style="list-style-type: none"> • Turn the printer off then on. • Check the power cord connections and the power switch. • Plug the printer into a different outlet. • Check that the power supplied to the printer is steady, and meets printer specifications. (See Electrical specifications.) 	<ul style="list-style-type: none"> • Press a printer control panel button to see if the printer responds. • Turn the printer power off, and then turn the printer power on. 	<ul style="list-style-type: none"> • Turn the printer power off and then on. When XXX MB appears on the control-panel display, press and hold down ✓ (SELECT button) until all three lights stay on. This could take up to 10 seconds. Then, release ✓ (SELECT button). Press ▼ (DOWN button) to scroll through the available languages. Press ✓ (SELECT button) to save the desired language as the new default. 	<ul style="list-style-type: none"> • Make sure that the desired language is selected at the printer control panel. • Turn the printer power off, and then turn the printer power on. 	<ul style="list-style-type: none"> • Go to Interpreting control-panel messages.
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2 Can you print a configuration page?

(See [Configuration page.](#))

YES →	Go to step 3.	
NO ↓		
A configuration page does not print.	A blank page prints.	A message other than READY or PRINTING CONFIGURATION appears on the printer control panel display.

<ul style="list-style-type: none"> • Check that all trays are properly loaded, adjusted, and installed in the printer. • Using the computer, check the print queue or print spooler to see if the printer has been paused. If there are problems with the current print job, or if the printer is paused, a configuration page will not print. (Press STOP and try step 2 in the troubleshooting flowchart again.) 	<ul style="list-style-type: none"> • Check that the sealing tape is not still in the print cartridge. (See the getting started [start] guide or the instructions that came with the print cartridge.) • The print cartridge might be empty. Install a new print cartridge. 	<ul style="list-style-type: none"> • Go to Interpreting control-panel messages.
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3 Can you print from a program?

YES →	Go to step 4.
NO ↓	
The job will not print.	A PS error page or list of commands prints.

<ul style="list-style-type: none"> • If the job will not print, and a message appears on the printer control panel display, see Interpreting control-panel messages. • Using the computer, check to see if the printer has been paused. Press STOP to continue. • If the printer is on a network, check that you are printing to the correct printer. To verify that it is not a network problem, connect the computer directly to the printer with a parallel or USB cable, change the port to LPT1, and try to print. • Check the interface cable connections. Disconnect and reconnect the cable at the computer and the printer. • Test the cable by trying it on another computer. • If you are using a parallel connection, make sure that the cable is IEEE-1284 compliant. • If the printer is on a network, print a configuration page. (See Configuration page.) If an HP Jetdirect print server is installed, a Jetdirect page also prints. Check the Jetdirect configuration page to verify that the network protocol status and settings are correct for the printer. • To verify that it is not a computer problem, print from another computer (if possible). • Make sure that the print job is being sent to the correct port (LPT1 or network printer port, for example). • Check that you are using the proper printer driver. (See Using the printer driver.) • Reinstall the printer driver. (See the getting started [start] guide.) • Check that the computer port is configured and working properly. (Try connecting another printer to that port and printing.) • If printing with the PS driver, on the Printing submenu (on the Configure Device menu) at the printer control panel, set PRINT PS ERRORS=ON, and then print the job again. If an error page prints, see the instructions in the next column. • On the System Setup submenu (on the Configure Device menu) at the printer control panel, make sure that PERSONALITY=AUTO. • You might be missing a printer message that could help you solve the problem. On the System Setup submenu (on the Configure Device menu) at the printer control panel, temporarily turn the Clearable Warnings and Auto Continue settings off. Then, print the job again. 	<ul style="list-style-type: none"> • The printer might have received a nonstandard PS code. On the System Setup submenu (on the Configure Device menu) at the printer control panel, set PERSONALITY=PS for this print job only. After the job has printed, return the setting to AUTO. • Make sure that the print job is a PS job, and that you are using the PS driver. • The printer might have received PS code although it is set to PCL. On the System Setup submenu (on the Configure Device menu), set PERSONALITY=AUTO.
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4 Does the job print as expected?

YES →	Go to step 5.		
NO ↓			
Print is garbled, or only a portion of the page prints.	Printing stops in the middle of the job.	Print speed is slower than expected.	A printer control panel setting is not taking effect.

<ul style="list-style-type: none"> • Check that you are using the proper printer driver. (See Using the printer driver.) • The data file sent to the printer might be corrupt. To test, try printing it on another printer (if possible), or try a different file. • Check the interface cable connections. Test the cable by trying it on another computer (if possible). • Replace the interface cable with a high-quality cable (see Part numbers). • Simplify the print job, print at a lower resolution, or install more printer memory. (See Printer memory.) • You might be missing a printer message that could help you solve the problem. On the System Setup submenu (on the Configure Device menu) at the printer control panel, temporarily turn the Clearable Warnings and Auto Continue settings off. Then print the job again. 	<ul style="list-style-type: none"> • STOP might have been pressed. • Check that the power supplied to the printer is steady, and that it meets printer specifications. (See Electrical specifications.) 	<ul style="list-style-type: none"> • Simplify the print job. • Add more memory to the printer. (See Printer memory.) • Turn banner pages off. (See your network administrator.) • Note that slower speeds should be expected if you are printing narrow paper, printing from tray 1, using the HIGH 2 fuser mode, or have set Small Paper Speed to SLOW. 	<ul style="list-style-type: none"> • Check settings in the printer driver or program. (The printer driver and program settings override printer control panel settings.)
The print job is not formatted correctly.	Paper is not fed correctly or is damaged.	There are print-quality problems.	

<ul style="list-style-type: none"> • Check that you are using the proper printer driver. (See Using the printer driver.) • Check the program settings. (See the program online Help.) • Try a different font. • Downloaded resources might have been lost. You might need to download them again. 	<ul style="list-style-type: none"> • Make sure that the paper is loaded correctly and that the guides are not too tight or too loose against the paper stack. • If you are having problems printing custom-size paper, see Printing on custom-sized media or cardstock. • If pages are wrinkled or curled, or if the image is skewed on the page, see Correcting print-quality problems. 	<ul style="list-style-type: none"> • Adjust the print resolution. (See Print Quality submenu.) • Check that RET is on. (See Print Quality submenu.) • Go to Correcting print-quality problems.
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5 Does the printer select the proper trays?

YES →	For other problems, check the Contents, the Index, or the printer driver online Help.	
NO↓		
The printer pulls paper from the wrong tray.	An optional tray is not working properly.	A message other than READY appears on the printer control panel display.

<ul style="list-style-type: none"> • Make sure that you have selected the correct tray. (See Selecting a paper source.) • Make sure that trays are correctly configured for paper size and type. (See Loading trays.) Print a configuration page to see current tray settings. (See Configuration page.) • Make sure that the tray selection (Source) or Type in the printer driver or program is set correctly. (The printer driver and program settings override the printer control panel settings.) • By default, paper loaded in tray 1 will be printed first. If you do not want to print from tray 1, remove any paper loaded in the tray or change the USE REQUESTED TRAY setting. (See Customizing tray 1 operation.) Change TRAY 1 SIZE and TRAY 1 TYPE to a setting other than ANY. • If you want to print from tray 1, but cannot select the tray in a program, see Customizing tray 1 operation. 	<ul style="list-style-type: none"> • Print a configuration page to verify that the tray is installed properly and is functional. (See Configuration page.) • Configure the printer driver to recognize the installed tray. (See the printer driver online Help.) • Turn the printer power off, and then turn the printer power on. • Verify that you are using the correct optional tray for the printer. 	<ul style="list-style-type: none"> • Go to Interpreting control-panel messages.
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Solving general printing problems

In addition to the issues and solutions that are listed in this section, see [Troubleshooting common Macintosh problems](#) if you are using a Macintosh computer, and see [Troubleshooting common PostScript problems](#) if you are using the PS driver.

Printer selects media from the wrong tray.

Cause	Solution
The tray selection in the software program might be incorrect.	For many software programs, the paper tray selection is found on the Page Setup menu within the program. Remove any media in other trays to make the printer select from the correct tray. For Macintosh computers, use the HP LaserJet Utility to change the priority of the tray.
The configured size does not match the size of the media that is loaded in the tray.	Through the control panel, change the configured size to match the size of the media that is loaded in the tray.

Printer does not pull paper from tray.

Cause	Solution
The tray is empty.	Load paper in the tray.
The paper guides are set incorrectly.	To set the guides correctly, see Loading trays . For the 500-sheet paper tray, make sure that the leading edge of the paper stack is even. An uneven edge can prevent the lift plate from rising.

Paper curls when it exits the printer.

Cause	Solution
The paper curls when it exits to the top output bin.	Open the rear output bin to allow the paper to exit in a straight path through the printer. Turn over the paper that you are printing on. Reduce the fusing temperature to reduce the curling. (See Selecting the correct fuser mode .)

First sheet of media jams in the print-cartridge area.

Cause	Solution
A combination of high humidity and high temperature is affecting the media.	Adjust the printer for high humidity and high temperature conditions.

Print job is extremely slow.

Cause	Solution
The job might be very complex. The maximum speed of the printer cannot be exceeded even when more memory is added. Printing speeds might be automatically reduced when printing on custom-sized media. Note: Slower speeds are expected when printing on narrow paper, when printing from tray 1, or when using the HIGH 2 fuser mode.	Reduce the complexity of the page or try adjusting the print-quality settings. If this problem occurs frequently, add memory to the printer.
You are printing a PDF or PostScript (PS) file but are using a PCL printer driver.	Try using the PS printer driver rather than the PCL printer driver. (You can usually do this from a software program.)
In the printer driver, Optimize for: is set to cardstock, heavy, rough, or bond paper.	In the printer driver, set the type to plain paper (see Printing by type and size of media (locking trays)). Note: If you change the setting to plain paper, the print job will print faster. However, if you are using heavy media, for best results leave the printer driver set to heavy even though printing might be slower.

Print job prints on both sides of the paper.

Cause	Solution
The printer is set for duplexing.	See Changing the settings for a print job to change the setting, or see the online Help.

Print job contains only one page but the printer processes the back side of the page as well (the page comes part of the way out, and then goes back into the printer).

Cause	Solution
The printer is set for duplexing. Even if the print job contains only one page, the printer also processes the back side.	See Changing the settings for a print job to change the setting, or see the online Help. Do not try to pull the page out of the printer before duplexing is complete. Jamming might result.

Pages print, but are totally blank.

Cause	Solution
The sealing tape might still be in the print cartridge.	Remove the print cartridge and pull out the sealing tape. Reinstall the print cartridge.
The file might have blank pages.	Check the file to make sure that it does not contain blank pages.

The printer prints, but the text is wrong, garbled, or incomplete.

Cause	Solution
The printer cable is loose or defective.	Disconnect the printer cable and reconnect it. Try a print job that you know works. If possible, attach the cable and printer to another computer and try a print job that you know works. Finally, try a new cable.
The printer is on a network or sharing device and is not receiving a clear signal.	Disconnect the printer from the network and use a parallel or USB cable to attach it directly to a computer. Print a job that you know works.
The wrong driver was selected in the software.	Check the software's printer selection menu to make sure that an HP LaserJet 2400 series printer is selected.
The software program is malfunctioning.	Try printing a job from another program.

The printer does not respond when you select Print in the software.

Cause	Solution
The printer is out of media.	Add media.
The printer might be in the manual feed mode.	Change the printer from manual-feed mode.
The cable between the computer and the printer is not connected properly.	Disconnect and reconnect the cable.
The printer cable is defective.	If possible, attach the cable to another computer and print a job that you know works. You might also try using a different cable.
The wrong printer was selected in the software.	Check the software printer selection menu to make sure that an HP LaserJet 2400 series printer is selected.
The printer might have a jam.	Clear any jams, paying careful attention to the duplexer area (if your model has a duplexer). See Clearing jams .
The software for the printer is not configured for the printer port.	Check the software's printer selection menu to make sure that it is using the correct port. If the computer has more than one port, make sure that the printer is attached to the correct one.
The printer is on a network and is not receiving a signal.	Disconnect the printer from the network and use a parallel or USB cable to attach it directly to a computer. Reinstall the printing software. Print a job that you know works. Clear any stopped jobs from the print queue.
The printer is not receiving power.	If no lights are on, check the power cord connections. Check the power switch. Check the power source.

The printer does not respond when you select Print in the software.

Cause	Solution
The printer is malfunctioning.	Check the control-panel display for messages and lights to determine if the printer is indicating an error. Note any message and see Interpreting control-panel messages .

Guidelines for using paper

For best results, make sure the paper is of good quality, and free of cuts, nicks, tears, spots, loose particles, dust, wrinkles, voids, and curled or bent edges.

If you are unsure what type of paper you are loading (such as bond or recycled), check the label on the package of paper.

For a complete list of supported media, see [Supported types and sizes of print media](#).

The following problems with paper cause print quality deviations, jamming, or even damage to the printer.

Symptom	Problem with paper	Solution
Poor print quality or toner adhesion	The paper is too moist, too rough, too heavy, too smooth, or it is embossed or from a faulty paper lot.	Try another kind of paper, between 100 and 250 Sheffield, and with 4 to 6% moisture content.
Dropouts, jamming, curl	The paper has been stored improperly. The paper varies from side to side.	Store paper flat in its moisture-proof wrapping. Turn the paper over.
Excessive curl	The paper is too moist, has the wrong grain direction, or is of short-grain construction. The paper varies from side to side.	Open the rear output bin, or use long-grain paper. Turn the paper over.
Jamming, damage to printer	The paper has cutouts or perforations.	Use paper that is free of cutouts or perforations.
Problems with feeding	The paper has ragged edges, or it is from a faulty paper lot. The paper varies from side to side. The paper is too moist, too rough, too heavy, or too smooth. It has the wrong grain direction, is of short-grain construction, or it is embossed.	Use high-quality paper that is made for laser printers. Turn the paper over. Try another kind of paper, between 100 and 250 Sheffield, and with 4 to 6% moisture content. Open the rear output bin, or use long-grain paper.

NOTE

Do not use letterhead paper that is printed with low-temperature inks, such as those used in some types of thermography. Do not use raised or embossed letterhead. The printer uses heat and pressure to fuse toner to the paper. Make sure that any colored paper or preprinted forms use inks that are compatible with this fusing temperature (200°C or 392°F for 0.1 second).

CAUTION

Failure to follow these guidelines could cause jams or damage to the printer.

Printing special pages

Special pages within the memory of the printer can help you to diagnose and learn about problems with your printer.

- **Configuration page**

The configuration page lists many of the current settings and properties of the printer. For information about how to print the configuration page, see [Configuration page](#). If you have an HP Jetdirect print server installed, a second page prints that lists all of the HP Jetdirect information.

- **Font list**

You can print a font list using the control panel (see [PS or PCL font list](#)) or (for Macintosh computers) the HP LaserJet Utility (see [HP LaserJet Utility](#)).

- **Supplies status page**

Use the supplies status page to obtain information about the print cartridge that is installed in the printer, the amount of life that is left in the print cartridge, and the number of pages and jobs that have been processed (see [Supplies status page](#)).

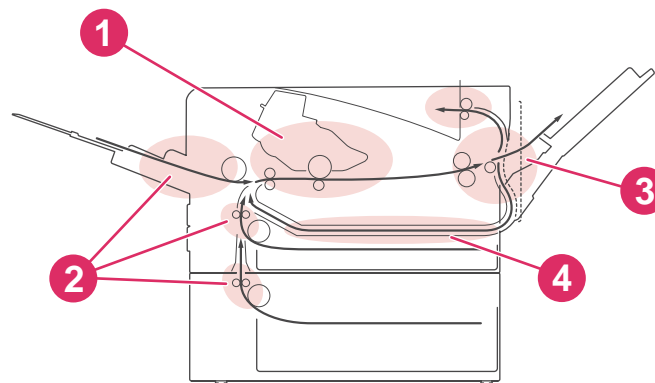
Clearing jams

Occasionally, media can become jammed during a print job. The following are some of the causes:

- Trays are loaded improperly or overfilled.
- Tray 2 or tray 3 is removed during a print job.
- The top cover is opened during a print job.
- The media that is being used does not meet HP specifications (see [Paper specifications](#)).
- The media that is being used is outside of the supported size range (see [Paper specifications](#)).

Typical jam locations

Jams can occur at four locations:



- 1 Print-cartridge area (see [Clearing jams in the print-cartridge area](#))
- 2 Input-tray areas (see [Clearing jams in the input trays](#))
- 3 Output-bin areas (see [Clearing jams in the output areas](#))
- 4 Duplexer area (applies only to models that include a duplexer) (see [Clearing jams in the duplexer area](#))

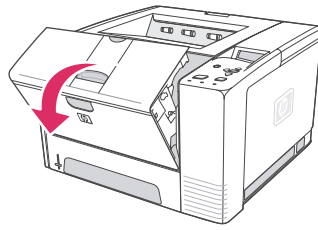
NOTE

Find and remove the jammed media by using the instructions that are provided in this section. If the location of the jam is not obvious, look first in the print cartridge area. Be sure to remove all torn pieces of media that remain in the printer. Loose toner might remain in the printer after a jam. This should clear after a few sheets have been printed.

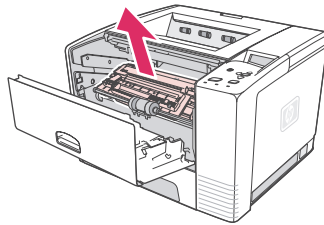
Clearing jams in the print-cartridge area

Jams in this area might result in loose toner on the page. If you get any toner on your clothes or hands, wash them in cold water. (Hot water will set the toner into the fabric.)

1. Open the top cover.



2. Remove the print cartridge.

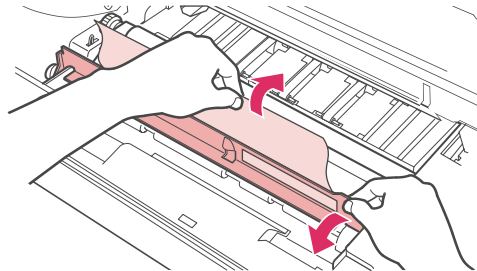


CAUTION

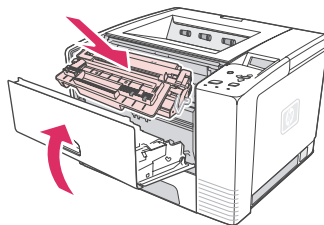
To prevent damage, do not expose the print cartridge to light for more than a few minutes. Place a piece of paper over the top of the print cartridge to shield it while it is out of the printer.

3. Carefully lift up the registration plate. If the leading edge of the print media is visible, gently pull the media toward the rear of the printer to remove it from the printer.

If the media is difficult to remove or has already entered the output area, remove the jam as described in [Clearing jams in the output areas](#).



4. When the jammed media has been removed, gently flip down the registration plate. Reinstall the print cartridge and shut the top cover.



NOTE

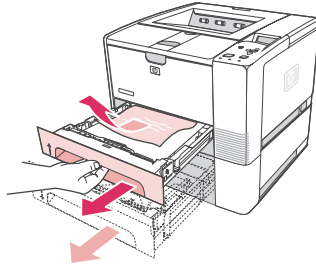
If the print cartridge is difficult to reinstall, make sure that the registration plate has been flipped back down into position and that you have pushed the print cartridge firmly into place. If the Attention light does not go out, jammed media remains inside the printer. Check the paper-feed and rear-output areas for jams. For printers that include a built-in duplexer, check the duplexer area.

Clearing jams in the input trays

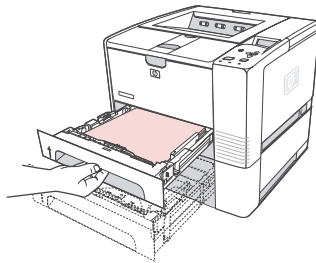
NOTE

If paper has entered the print cartridge area, follow the instructions in [Clearing jams in the print-cartridge area](#). It is easier to remove paper from the print cartridge area than from the paper-feed area.

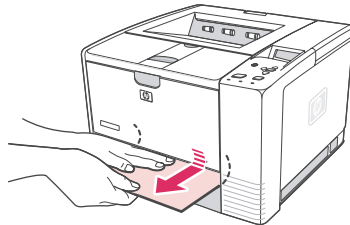
1. Slide out tray 2 or tray 3 to expose the jam.



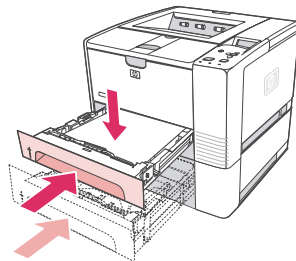
2. Remove any misfed media by pulling it out by the visible edge. Make sure that all of the media is aligned in the tray (see [Loading trays](#)). If tray 3 is installed, remove any misfed media and make sure that all of the media is aligned in that tray.



3. If the media is jammed in the paper-feed area and cannot be reached from the print-cartridge area, grasp the sheet and carefully pull it free from the printer.



4. For tray 2, push the stack down to lock the metal paper-lift plate into place. For both trays, slide the tray into the printer.



5. To reset the printer and continue printing, press ✓ ([SELECT](#) button).

NOTE

If the Attention light does not go out, jammed media remains inside the printer. Check the paper-feed and rear-output areas for jams. For printers that include a built-in duplexer, check the duplexer area.

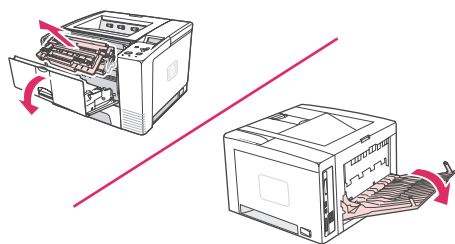
Clearing jams in the output areas

Jams in this area might result in loose toner on the page. If you get any toner on your clothes or hands, wash them in cold water. (Hot water will set the toner into the fabric.)

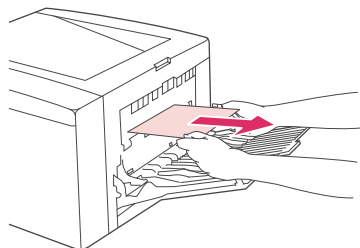
1. Open the top cover and remove the print cartridge. Open the rear output bin. (The rear output bin might be hard to open. If necessary, pull hard to open it.)

NOTE

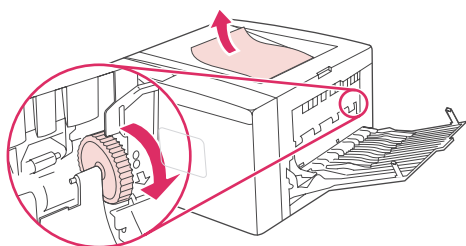
It is necessary to open the top cover in order to release the rear output gears and to remove the media easily.



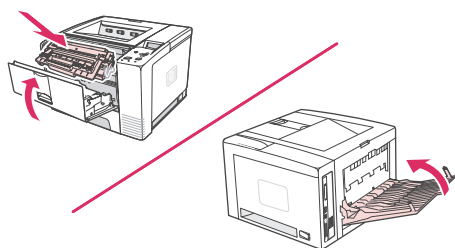
2. If the media is visible from the rear output opening, carefully use both hands to pull the leading edge out of the printer. Carefully remove the rest of the jammed media from the printer.



3. If the media is almost completely visible from the top output bin, pull the remaining media carefully out of the printer. If the leading edge is not visible or is barely visible in the print-cartridge area, open the rear output bin all the way. To do this, push the bin door slightly forward and use your finger to disengage the grill at the base. Turn the jam-clearing wheel to move the media out of the printer.



4. Reinstall the print cartridge. Close the top cover and the rear output bin.



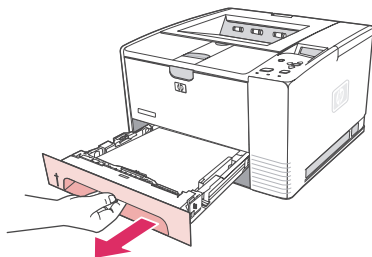
NOTE

If the print cartridge is difficult to reinstall, make sure that the registration plate has been flipped back down into position and that you have pushed the print cartridge firmly in place. If the Attention light does not go out, jammed media remains inside the printer. Check the paper-feed and rear-output areas for jams. For printers that include a built-in duplexer, check the duplexer area.

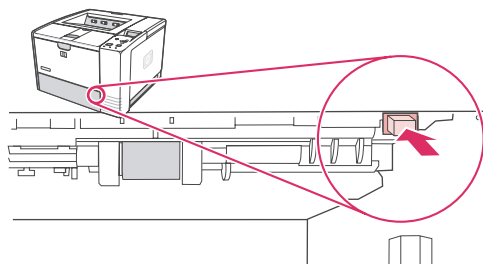
Clearing jams in the duplexer area

This procedure applies only to printers that include a duplexer.

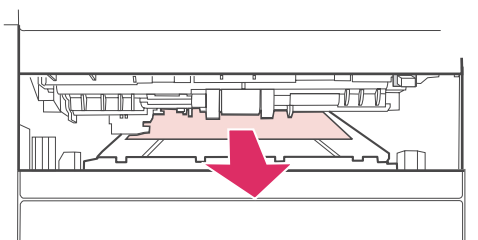
1. Remove tray 2 from the printer.



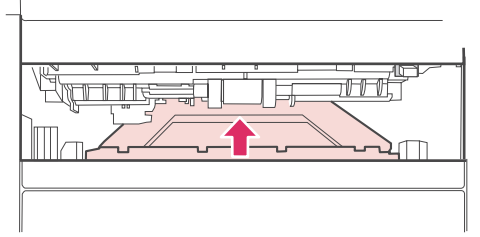
2. Push the green button on the right front of the tray 2 opening to open the paper-access plate.



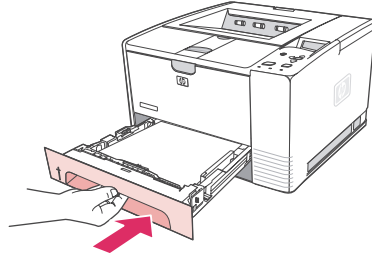
3. Reach in and pull out the jammed paper.



4. Push the bottom of the paper-access plate back up until it clicks into place on both sides (both sides need to be engaged).



5. Reinstall tray 2.



NOTE

If the Attention light does not go out, jammed media remains inside the printer. Check the paper-feed and rear-output areas for jams.

Understanding printer messages

Printer messages appear on the printer control panel display to relay the normal status of the printer (such as **Processing...**) or an error condition (such as **CLOSE TOP COVER**) that needs attention. [Interpreting control-panel messages](#) lists the most common messages that require attention or that might raise questions. Messages are listed in alphabetical order first, with numeric messages at the end of the list.

Using the printer online Help system

This printer features an online Help system on the control panel that provides instructions for resolving most printer errors. Certain control panel messages alternate with instructions about gaining access to the online Help system.

Whenever a message alternates with **For help press**, press ? (**HELP** button) to view the help and use ▲ (**UP** button) and ▼ (**DOWN** button) to scroll through the message.

To exit the online Help system, press **MENU**.

Resolving persistent messages

Some messages (for example, requests to load a tray or a message that a previous print job is still in the printer memory) allow you to press ✓ (**SELECT** button) to print, or to press **STOP** to clear the job and eliminate the message.

If a message persists after performing all of the recommended actions, contact an HP-authorized service or support provider. (See [HP customer care](#) or go to www.hp.com/support/lj2410, <http://www.hp.com/support/lj2420>, or <http://www.hp.com/support/lj2430>.)

Interpreting control-panel messages

Control panel message	Description	Recommended action
Access denied MENUS LOCKED	The printer control panel function you are trying to use has been locked to prevent unauthorized access.	See your network administrator.
Canceling...	The printer is canceling a job. The message continues while the job is stopped, the paper path is cleared, and any remaining incoming data on the active data channel is received and discarded.	No action necessary.
CARD SLOT X DEVICE FAILURE alternates with <Current status message>	The CompactFlash card in slot X had a critical failure and can no longer be used.	Remove the card and replace it with a new one. (See Printer memory .)
CARD SLOT X FILE OPERATION FAILED alternates with <Current status message>	The requested operation could not be performed. You might have attempted an illegal operation, such as trying to download a file to a non-existent folder.	Try printing again to an existing folder.

Interpreting control-panel messages (continued)

Control panel message	Description	Recommended action
CARD SLOT X FILE SYSTEM IS FULL alternates with <Current status message>	The CompactFlash card in slot X is full.	Delete files from the CompactFlash card and then try again. Use the Device Storage Manager in HP Web Jetadmin to download or delete files and fonts. (See the HP Web Jetadmin software Help for more information.)
CARD SLOT X IS WRITE PROTECTED alternates with <Current status message>	The CompactFlash card in slot X is protected, and no new files can be written to it.	Use the Device Storage Manager in HP Web Jetadmin to disable the write protection.
CARD SLOT <X> NOT FUNCTIONAL alternates with <Current status message>	The CompactFlash card in slot X is not working correctly.	<ol style="list-style-type: none"> 1. Turn the printer power off. 2. Make sure the card is inserted correctly. 3. If the printer control panel message continues to appear, the card needs to be replaced.
CARD SLOT X NOT INITIALIZED alternates with <Current status message>	The file system has not been initialized.	Use HP Web Jetadmin to initialize the file system.
Checking paper path	The printer is checking for possible jams or paper that was not cleared from the printer.	No action necessary.
Checking printer	The printer is checking for possible jams or paper that was not cleared from the printer.	No action necessary.
CHOSEN PERSONALITY NOT AVAILABLE alternates with To continue press ✓	The printer received a request for a personality (printer language) that does not exist in the printer. The print job is canceled.	<p>Print the job using a printer driver for a different printer language, or add the requested language to the printer (if available).</p> <p>To see a list of available personalities, print a configuration page. (See Configuration page)</p>
Clearing paper path	The printer jammed or the printer was turned on and media was detected in a wrong location. The printer is automatically attempting to eject the pages.	Wait for the printer to finish trying to clear the pages. If it cannot, a jam message will appear on the control panel display.
DATA RECEIVED alternates with <current status message>	The printer is waiting for the command to print (such as waiting for a form feed, or when the print job is paused).	Press ✓ (SELECT button) to continue.
Event log empty	You are attempting to view an empty event log by selecting SHOW EVENT LOG from the control panel.	No action necessary.

Interpreting control-panel messages (continued)

Control panel message	Description	Recommended action
INSTALL CARTRIDGE For help press ?	The print cartridge is missing and must be reinstalled for printing to continue.	Replace or correctly reinstall the print cartridge.
INSUFFICIENT MEMORY TO LOAD FONTS/DATA . alternates with <DEVICE> To continue press ✓	The printer received more data than can fit in its available memory. You might have tried to transfer too many macros, soft fonts, or complex graphics.	Press ✓ (SELECT button) to print the transferred data (some data might be lost). To solve this problem, simplify the print job or install additional memory.
LOAD TRAY XX [TYPE][SIZE] For help press ?	The tray that is indicated is configured for a specific type and size of media needed by a print job, but the tray is empty. All other trays are also empty.	Load the requested media in the tray that is indicated.
LOAD TRAY XX [TYPE][SIZE] To continue press ✓ alternates with LOAD TRAY XX [TYPE][SIZE] For help press ?	A job is sent that requires a specific type and size that is not available in the tray that is indicated.	Load the requested media into the indicated tray and press ✓ (SELECT button).
LOAD TRAY XX [TYPE][SIZE] To continue press ✓ alternates with To use another tray press ✓	A job is sent that requires a specific type and size that is not available in the tray that is indicated.	Press ✓ (SELECT button) to use a type and size that are available in another tray.
LOAD TRAY XX [TYPE][SIZE] To continue press ✓ alternates with Move tray switch to CUSTOM	A job is sent that requires a specific type and size that is not available in the tray that is indicated.	Move the tray switch to the CUSTOM position if another tray is available.
LOAD TRAY XX [TYPE][SIZE] To continue press ✓ alternates with Recommend move tray switch to STANDARD	A job is sent that requires a specific type and size that is not available in the tray that is indicated.	If the size is detectable and another tray is available, move the switch to the STANDARD position.

Interpreting control-panel messages (continued)

Control panel message	Description	Recommended action
MANUALLY FEED OUTPUT STACK alternates with Then press ✓ to print second sides	The first side of a manual duplex job has been printed and the device is waiting for you to insert the output stack to complete the second side.	<ol style="list-style-type: none"> 1. Load the output stack into tray 1, maintaining the same orientation with printed side down. 2. To continue printing, press ✓ (SELECT button) to exit the printer message and then press ✓ (SELECT button) to print.
MANUALLY FEED [TYPE][SIZE] To use another tray press ✓	The printer is waiting for media to be loaded in tray 1 for manual feed.	Press ✓ (SELECT button) to use a type and size that are available in another tray.
MANUALLY FEED [TYPE][SIZE] To continue press ✓ alternates with MANUALLY FEED [TYPE][SIZE] For help press ?	The printer is waiting for media to be loaded in tray 1 for manual feed.	Load the requested media into tray 1 and press ✓ (SELECT button).
No job to cancel	The STOP button was pressed, but there is no active job or buffered data to cancel. The message is displayed for approximately 2 seconds before the printer returns to the ready state.	No action necessary.
NON HP SUPPLY INSTALLED alternates with <Current status message> Economode disabled	The printer has detected that the print cartridge is not a genuine HP supply.	This message is displayed until you install an HP cartridge or press the override button ✓ (SELECT button). If you believe you purchased a genuine HP supply, go to http://www.hp.com/go/anticounterfeit . Any printer repair required as a result of using non-HP supplies or unauthorized supplies is not covered under the printer warranty.
ORDER CARTRIDGE alternates with <current status message>	The message first appears when about 16% (6,000-page cartridge) or about 8% (12,000-page cartridge) of the life remains in the print cartridge.	Make sure that you have a new cartridge ready (see Ordering parts, accessories, and supplies).
Paused alternates with To return to ready press STOP	The printer is paused but continues to receive data until the memory is full. The printer is not experiencing an error.	Press STOP .

Interpreting control-panel messages (continued)

Control panel message	Description	Recommended action
RAM DISK DEVICE FAILURE alternates with <Current status message>	The RAM disk had a critical failure and can no longer be used.	Contact an HP-authorized service or support provider.
RAM DISK FILE OPERATION FAILED alternates with <Current status message>	The requested operation could not be performed. You might have attempted an illegal operation, such as trying to download a file to a non-existent folder.	Try printing again to an existing folder.
RAM DISK FILE SYSTEM IS FULL alternates with <Current status message>	The RAM disk is full.	<ol style="list-style-type: none"> 1. Delete files and then try again, or turn the printer power off, and then turn the printer power on to delete all files on the device. (Use Device Storage Manager in HP Web Jetadmin or another software utility to delete the files.) 2. If the message persists, increase the size of the RAM disk. Change the RAM disk size on the System Setup submenu (on the Configure Device menu) at the printer control panel. See the description of the RAM disk menu items in System Setup submenu.
RAM DISK IS WRITE PROTECTED alternates with <Current status message>	The RAM disk is protected, and no new files can be written to it.	Use the Device Storage Manager in HP Web Jetadmin to disable the write protection.
RAM DISK NOT INITIALIZED alternates with <Current status message>	The file system has not been initialized.	Use HP Web Jetadmin to initialize the file system.
REPLACE CARTRIDGE To continue press ✓	Pages remaining for this supply has reached the low threshold. The printer was set to continue printing when a supply needs to be ordered.	<p>Press ✓ (SELECT button) to continue printing the current job.</p> <p>Follow the next steps to replace the supply.</p> <ol style="list-style-type: none"> 1. Open the top cover. 2. Remove print cartridge. 3. Install new print cartridge. 4. Close the top cover.

Interpreting control-panel messages (continued)

Control panel message	Description	Recommended action
REPLACE CARTRIDGE For help press ? alternates with <current status message>	Pages remaining for this supply has reached the low threshold. The printer was set to stop printing when a supply needs to be ordered.	<p>To continue printing, press ✓ (SELECT button) to exit the printer message then press ✓ (SELECT button). The message becomes ORDER CARTRIDGE LESS THAN XXXX PAGES (warning).</p> <p>Follow the next steps to replace the supply.</p> <ol style="list-style-type: none"> 1. Open the top cover. 2. Remove print cartridge. 3. Install new print cartridge. 4. Close the top cover.
TRAY XX OPEN OR EMPTY alternates with <current status message>	The tray cannot feed paper to the printer because tray [X] is open and must be closed for printing to continue.	Check the trays and close any that are open.
TRAY XX [TYPE][SIZE] alternates with To change size or type press ✓	This message states the current type and size configuration of the paper tray, and allows you to change the configuration.	<p>To change the paper size or type press ✓ (SELECT button) while the message is present. To clear the message, press the ⇨ (BACK button) while the message is present.</p> <ul style="list-style-type: none"> • Set size and type to ANY if the tray is used frequently for different sizes or types. • Set size and type to a specific setting if printing with only one type of paper.
UNSUPPORTED DATA ON [FS] DIMM IN SLOT X alternates with To clear press ✓	The data on the DIMM is not supported.	<p>The DIMM might need to be replaced. Turn the printer power off before removing it.</p> <p>Press ✓ (SELECT button) to continue.</p>
USE TRAY XX [TYPE][SIZE] alternates with To change press ▲ / ▼ To use press ✓	The printer did not detect the type and size of media requested. The message shows the most likely type and size available and the tray in which they are available.	Press ✓ (SELECT button) to accept the values in the message, or use ▲ (Up button) and ▼ (Down button) to scroll through the available choices.
10.XX.YY SUPPLY MEMORY ERROR alternates with For help press ?	<p>An error has occurred in one or more of the printer's supplies. Values of XX and YY are listed below:</p> <p>XX00 = memory is defective XX01 = memory is missing YY00 = black print cartridge</p>	<ol style="list-style-type: none"> 1. Turn the printer power off, and then turn the printer power on to clear the message. 2. If the message persists, contact an HP-authorized service or support provider (see HP customer care).

Interpreting control-panel messages (continued)

Control panel message	Description	Recommended action
10.32.00 UNAUTHORIZED SUPPLY alternates with For help press ?	The printer has detected that a printer supply is not a genuine HP supply.	<p>This message is displayed until you install an HP supply or press the override button ✓ (SELECT button).</p> <p>If you believe you purchased an HP supply, go to http://www.hp.com/go/anticounterfeit.</p> <p>Any printer repair required as a result of using non-HP supplies or unauthorized supplies is not covered under the printer warranty.</p>
13.XX.YY JAM IN <Location>	A jam has occurred in the specified location.	<p>Remove jammed media from the specified location. See Clearing jams.</p> <p>If the message persists after all jams have been cleared, a sensor might be stuck or broken. Contact an HP-authorized service or support provider (see HP customer care).</p>
20 INSUFFICIENT MEMORY alternates with To continue press ✓	The printer received more data than can fit in its available memory. You might have tried to transfer too many macros, soft fonts, or complex graphics.	<p>Press ✓ (SELECT button) to print the transferred data (some data might be lost), and then simplify the print job or install additional memory. (See Printer memory.)</p>
21 PAGE TOO COMPLEX alternates with To continue press ✓	The data (dense text, rules, raster or vector graphics) sent to the printer was too complex.	<ol style="list-style-type: none"> 1. Press ✓ (SELECT button) to print the transferred data (some data might be lost). 2. If this message appears often, simplify the print job or install additional memory. (See Printer memory.)
22 EIO X BUFFER OVERFLOW alternates with To continue press ✓	<p>Too much data was sent to the EIO card in the specified slot [X]. An improper communications protocol might be in use.</p> <p>Note: EIO 0 is reserved for the HP Jetdirect embedded print server.</p>	<ol style="list-style-type: none"> 1. Press ✓ (SELECT button) to clear the message. (The job will not be printed.) 2. Check the host configuration. If the message persists, contact an HP-authorized service or support provider (see HP customer care).

Interpreting control-panel messages (continued)

Control panel message	Description	Recommended action
22 PARALLEL I/O BUFFER OVERFLOW alternates with To continue press ✓	Too much data was sent to the parallel port.	<ol style="list-style-type: none"> 1. Check for a loose cable connection and be sure to use a high-quality cable. Some non-HP parallel cables might be missing pin connections or might otherwise not conform to the IEEE-1284 specification. (See Ordering parts, accessories, and supplies.) 2. This error can occur if the driver you are using is not IEEE-1284 compliant. For best results, use an HP driver that came with the printer. (See Software.) 3. Press ✓ (SELECT button) to clear the error message. (The job will not be printed.) 4. If the message persists, contact an HP-authorized service or support provider (see HP customer care).
22 USB I/O BUFFER OVERFLOW alternates with To continue press ✓	Too much data was sent to the USB port.	Press ✓ (SELECT button) to clear the error message. (The job will not be printed.)
40 EIO X BAD TRANSMISSION alternates with To continue press ✓	The connection has been broken between the printer and the EIO card in the specified slot [X]. Note: EIO 0 is reserved for the HP Jetdirect embedded print server.	Press ✓ (SELECT button) to clear the error message and continue printing.
41.X ERROR For help press ? alternates with 41.X ERROR To continue press ✓	A temporary printing error occurred.	<ol style="list-style-type: none"> 1. Press ✓ (SELECT button). The page containing the error automatically reprints if jam recovery is enabled. 2. Turn the printer power off, and then turn the printer power on. 3. If the message persists, contact an HP-authorized service or support provider (see HP customer care).
41.3 UNEXPECTED SIZE IN TRAY X alternates with LOAD TRAY XX [TYPE][SIZE]	This is typically caused if two or more sheets stick together in the printer or if the tray is not properly adjusted.	<ol style="list-style-type: none"> 1. Reload the tray with the correct paper size. 2. Press ✓ (SELECT button) to scroll to TRAY XX SIZE=. Reconfigure the size in a tray so that the printer will use a tray that contains the size required for the print job. 3. If the error does not clear, turn the printer power off, then turn the printer power on. 4. If the message persists, contact an HP-authorized service or support provider (see HP customer care).

Interpreting control-panel messages (continued)

Control panel message	Description	Recommended action
49.XXXXX ERROR alternates with To continue turn off then on	A critical firmware error has occurred.	<ol style="list-style-type: none"> 1. Turn the printer power off, leave it off for 20 minutes, and then turn the printer power on. 2. If the message persists, contact an HP-authorized service or support provider (see HP customer care).
50.X FUSER ERROR For help press ?	A fuser error has occurred.	<ol style="list-style-type: none"> 1. Turn the printer power off and then on. 2. If the message persists, contact an HP-authorized service or support provider (see HP customer care).
51.XY ERROR For help press ? alternates with To continue turn off then on	A temporary printing error occurred.	<ol style="list-style-type: none"> 1. Turn the printer power off and then on. 2. If the message persists, contact an HP-authorized service or support provider (see HP customer care).
52.XY ERROR For help press ? alternates with To continue turn off then on	A temporary printing error occurred.	<ol style="list-style-type: none"> 1. Turn the printer power off and then on. 2. If the message persists, contact an HP-authorized service or support provider (see HP customer care).
53.XY.ZZ CHECK RAM DIMM SLOT <X> alternates with To continue turn off then on	There is a problem with the printer memory. The DIMM that caused the error will not be used.	<p>You will be prompted to press ✓ (SELECT button) to continue in the following cases:</p> <ul style="list-style-type: none"> • 1 or 2 DIMMs where the only error is ZZ=04 • 2 DIMMs where one is good and the other has an error with ZZ=01, 02, 03, or 05 • 2 DIMMs where one has an error with ZZ=04 and the other has an error with ZZ=01, 02, 03, or 05 <p>Values of X and Y are as follows:</p> <ul style="list-style-type: none"> • X = DIMM type, 1 = RAM • Y = Device location, 0 = Internal memory (RAM), 1 or 2 = DIMM slot 1 or 2 <p>If the message continues, you might need to replace the specified DIMM. Turn the printer power off, and then replace the DIMM that caused the error.</p>
54.XX ERROR alternates with To continue turn off then on	This message is typically related to a sensor issue.	<p>Turn the printer power off and then on.</p> <p>If error reappears, record message and contact an HP-authorized service or support provider (see HP customer care).</p>

Interpreting control-panel messages (continued)

Control panel message	Description	Recommended action
55.XX.YY DC CONTROLLER ERROR alternates with To continue turn off then on	A temporary printing error occurred.	<ol style="list-style-type: none"> 1. Turn the printer power off and then on. 2. If the message persists, contact an HP-authorized service or support provider (see HP customer care).
56.XX ERROR For help press ? alternates with To continue turn off then on	A temporary printing error occurred as a result of an incorrect input or output request.	<ol style="list-style-type: none"> 1. Turn the printer power off and then on. 2. If the message persists, contact an HP-authorized service or support provider (see HP customer care).
57.XX ERROR For help press ? alternates with To continue turn off then on	A temporary printing error occurred in one of the printer fans.	<ol style="list-style-type: none"> 1. Turn the printer power off and then on. 2. If the message persists, contact an HP-authorized service or support provider (see HP customer care).
58.XX ERROR For help press ? alternates with To continue turn off then on	A printer error has occurred where a memory tag CPU error was detected, or there is a problem with the air sensor or power supply.	<p>To resolve problems with the power supply:</p> <ol style="list-style-type: none"> 1. Remove the printer from any UPS supplies, additional power supplies, or power strips. Plug the printer into a wall outlet and see if this resolves the problem. 2. If the printer is already plugged into a wall outlet, try another power source in the building that is independent of the one currently being used. <p>The line voltage and current source at the printer location might need to be inspected to ensure that they meet the electrical specifications for the printer. (See Electrical specifications.)</p> <p>If the message persists, contact an HP-authorized service or support provider (see HP customer care).</p>
59.XY ERROR For help press ? alternates with To continue turn off then on	A temporary printing error occurred.	<ol style="list-style-type: none"> 1. Turn the printer power off and then on. 2. If the message persists, contact an HP-authorized service or support provider (see HP customer care).

Interpreting control-panel messages (continued)

Control panel message	Description	Recommended action
62 NO SYSTEM alternates with To continue turn off then on	This message indicates that no system was found. The printer software system is corrupt.	<ol style="list-style-type: none"> 1. Turn the printer power off and then on. 2. If the message persists, contact an HP-authorized service or support provider (see HP customer care).
64 ERROR alternates with To continue turn off then on	A temporary printing error occurred in the scan buffer.	<ol style="list-style-type: none"> 1. Turn the printer power off and then on. 2. If the message persists, contact an HP-authorized service or support provider (see HP customer care).
68.X STORAGE ERROR SETTINGS CHANGED alternates with To continue press ✓	An error occurred in the printer permanent storage and one or more printer settings has been reset to its factory default.	<p>Press ✓ (SELECT button) to clear the message, and press ✓ (SELECT button) to resume printing.</p> <p>Print a configuration page and check the printer settings to determine which values have changed. See Configuration page.</p> <p>If the error does not clear, turn printer off then on. If the error reappears, record the message and contact an HP-authorized service or support provider (see HP customer care).</p>
68.X PERMANENT STORAGE FULL alternates with To continue press ✓	The printer permanent storage is full. Some settings might have been reset to the factory defaults.	<ol style="list-style-type: none"> 1. If the error does not clear, turn printer off then on. 2. Print a configuration page and check the printer settings to determine which values have changed. See Configuration page. 3. Turn the printer power off, then press and hold MENU while turning the printer on to clean up permanent storage. 4. If the error reappears, record the message and contact an HP-authorized service or support provider (see HP customer care).
68.X PERMANENT STORAGE WRITE FAIL alternates with To continue press ✓	The storage device is failing to write. Printing can continue, but there might be some unexpected behaviors because an error occurred in permanent storage.	<p>Press ✓ (SELECT button) to continue.</p> <p>If the error does not clear, turn the printer off then on. If error reappears, record the message and contact an HP-authorized service or support provider (see HP customer care).</p>

Interpreting control-panel messages (continued)

Control panel message	Description	Recommended action
79.XXXX ERROR alternates with To continue turn off then on	The printer detected a critical hardware error.	<ol style="list-style-type: none"> 1. Press STOP to clear the print job from the printer memory. Turn the printer power off and then on. 2. Try printing a job from a different program. If the job prints, go back to the first program and try printing a different file. If the message appears only with a certain program or print job, contact the software vendor for assistance. <p>If the message persists with different programs and print jobs, try these steps.</p> <ol style="list-style-type: none"> 1. Turn the printer power off. 2. Disconnect all cables to the printer that connect it to the network or computer. 3. Remove all the memory DIMMs or third-party DIMMs from the printer. Then reinstall at least one memory DIMM . (See Printer memory.) 4. Remove all EIO devices and CompactFlash cards from the printer. 5. Turn the printer power on. <p>If the error no longer exists, follow these steps.</p> <ol style="list-style-type: none"> 1. Install each DIMM and EIO device one at a time, making sure to turn the printer power off and back on as you install each device. 2. Replace a DIMM or EIO device if you determine that it causes the error. 3. Reconnect all cables that connect the printer to the network or computer.
8X.YYYY EIO ERROR	The EIO accessory card has encountered a critical error.	<ol style="list-style-type: none"> 1. Turn the printer power off and then on. 2. Turn the printer power off, reseal the EIO accessory, and then turn the printer power on. 3. Replace the EIO accessory.
8X.YYYY EMBEDDED JETDIRECT ERROR	The embedded HP Jetdirect print server has encountered a critical error.	<ol style="list-style-type: none"> 1. Turn the printer power off and then on. 2. If the message persists, contact an HP-authorized service or support provider (see HP customer care).

Correcting print-quality problems

This section helps you define print-quality problems and what to do to correct them. Often print-quality problems can be handled easily by making sure that the printer is properly maintained, using print media that meets HP specifications, or running a cleaning page.

Print-quality checklist

General print-quality problems can be solved by following the checklist below.

- Check the printer driver to make sure that you are using the best available print quality option (see [Selecting print-quality settings](#)).
- Try printing with one of the alternative printer drivers. The most recent printer drivers are available for download from http://www.hp.com/go/lj2410_software, http://www.hp.com/go/lj2420_software, or http://www.hp.com/go/lj2430_software.
- Clean the inside of the printer (see [Cleaning the printer](#)).
- Check the paper type and quality (see [Paper specifications](#)).
- Check to make sure that EconoMode is off in the software (see [Using EconoMode \(draft\) printing](#)).
- Troubleshoot general printing problems (see [Solving general printing problems](#)).
- Install a new HP print cartridge, and then check the print quality again. (See the instructions provided with the print cartridge.)

NOTE

If the page is totally blank (all white) check to make sure that the sealing tape is removed from the print cartridge and ensure that the print cartridge is installed correctly. Newer printers have been optimized to print characters more accurately. This might result in characters that look lighter or thinner than you are used to from your older printer. If the page is printing images darker than those from an older printer, and you want the images to match the older printer, make these changes in your printer driver: on the **Finishing** tab, select **Print Quality**, select **Custom**, click **Details**, and click the check box for **Print Images Lighter**.

Image defect examples

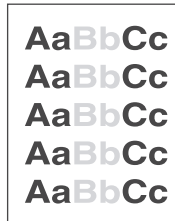
Use the examples in this image-defect table to determine which print-quality problem you are experiencing, and then see the corresponding reference pages to troubleshoot. These examples identify the most common print-quality problems. If you still have problems after trying the suggested remedies, contact HP Customer Support. (See [HP customer care](#).)

NOTE

The examples below depict letter-size paper that has passed through the printer short-edge first.

<p>See Light print (partial page)</p>	<p>See Light print (entire page)</p>	<p>See Specks</p>	<p>See Specks</p>	<p>See Dropouts</p>
<p>See Dropouts</p>	<p>See Dropouts</p>	<p>See Lines</p>	<p>See Gray background</p>	<p>See Toner smear</p>
<p>See Loose toner</p>	<p>See Repeating defects</p>	<p>See Repeating image</p>	<p>See Misformed characters</p>	<p>See Page skew</p>
<p>See Curl or wave</p>	<p>See Wrinkles or creases</p>	<p>See Vertical white lines</p>	<p>See Tire tracks</p>	<p>See White spots on black</p>
<p>See Scattered lines.</p>	<p>See Blurred print.</p>	<p>See Random image repetition (dark)</p>	<p>See Random image repetition (light)</p>	

Light print (partial page)



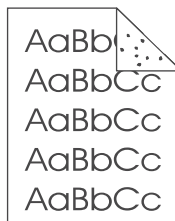
1. Make sure that the print cartridge is fully installed.
2. The toner level in the print cartridge might be low. Replace the print cartridge.
3. The media might not meet HP specifications (for example, the paper is too moist or too rough). See [Paper specifications](#).

Light print (entire page)



1. Make sure that the print cartridge is fully installed.
2. Make sure that the EconoMode setting is turned off at the control panel and in the printer driver.
3. Open the Configure Device menu at the printer control panel. Open the Print Quality submenu and increase the TONER DENSITY setting. See [Print Quality submenu](#).
4. Try using a different type of paper.
5. The print cartridge might be almost empty. Replace the print cartridge.

Specks



Specks might appear on a page after a jam has been cleared.

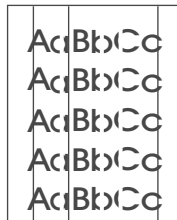
1. Print a few more pages to see if the problem corrects itself.
2. Clean the inside of the printer and run a cleaning page to clean the fuser. (See [Cleaning the printer](#).)
3. Try using a different type of paper.
4. Check the print cartridge for leaks. If the print cartridge is leaking, replace it.

Dropouts



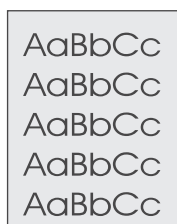
1. Make sure that the environmental specifications for the printer are being met. (See [Operating environment](#).)
2. If the paper is rough, and the toner easily rubs off, open the Configure Device menu at the printer control panel. Open the Print Quality submenu, select **FUSER MODES**, and then select the paper type you are using. Change the setting to HIGH 1 or HIGH 2, which helps the toner fuse more completely onto the paper. (See [Print Quality submenu](#).)
3. Try using a smoother paper.

Lines



1. Print a few more pages to see if the problem corrects itself.
2. Clean the inside of the printer and run a cleaning page to clean the fuser. (See [Cleaning the printer](#).)
3. Replace the print cartridge.

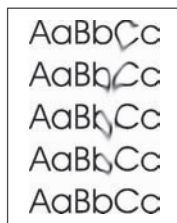
Gray background



1. Do not use paper that has already been run through the printer.
2. Try using a different type of paper.
3. Print a few more pages to see if the problem corrects itself.
4. Turn over the stack of paper in the tray. Also, try rotating the paper 180°.
5. Open the Configure Device menu at the printer control panel. On the Print Quality submenu, increase the **TONER DENSITY** setting. See [Print Quality submenu](#).

6. Make sure that the environmental specifications for the printer are being met. (See [Operating environment](#).)
7. Replace the print cartridge.

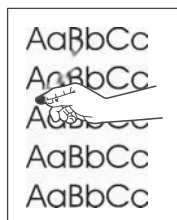
Toner smear



1. Print a few more pages to see if the problem corrects itself.
2. Try using a different type of paper.
3. Make sure that the environmental specifications for the printer are being met. (See [Operating environment](#).)
4. Clean the inside of the printer and run a cleaning page to clean the fuser. (See [Cleaning the printer](#).)
5. Replace the print cartridge.

Also see [Loose toner](#).

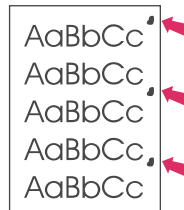
Loose toner



Loose toner, in this context, is defined as toner that can be rubbed off the page.

1. If paper is heavy or rough, open the Configure Device menu at the printer control panel. On the Print Quality submenu, select **FUSER MODES**, and then select the paper type you are using. Change the setting to HIGH 1 or HIGH 2, which helps the toner fuse more completely onto the paper. (See [Print Quality submenu](#).) You must also set the type of paper for the tray you are using. (See [Printing by type and size of media \(locking trays\)](#).)
2. If you have observed a rougher texture on one side of your paper, try printing on the smoother side.
3. Make sure that the environmental specifications for the printer are being met. (See [Operating environment](#).)
4. Make sure that type and quality of the paper you are using meet HP specifications. (See [Paper specifications](#).)

Repeating defects



1. Print a few more pages to see if the problem corrects itself.
2. If the distance between defects is 38 mm (1.5 inches), 47 mm (1.85 inches), or 94 mm (3.7 inches), the print cartridge might need to be replaced.
3. Clean the inside of the printer and run a cleaning page to clean the fuser. (See [Cleaning the printer.](#))

Also see [Repeating image.](#)

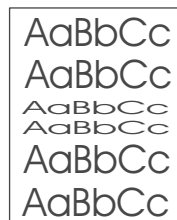
Repeating image



This type of defect might occur when using preprinted forms or a large quantity of narrow paper.

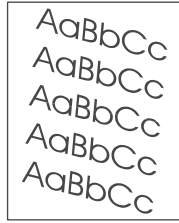
1. Print a few more pages to see if the problem corrects itself.
2. Make sure that type and quality of the paper you are using meet HP specifications. (See [Paper specifications.](#))
3. If the distance between defects is 38 mm (1.5 inches), 47 mm (1.85 inches), or 94 mm (3.7 inches), the print cartridge might need to be replaced.

Misformed characters



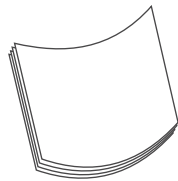
1. Print a few more pages to see if the problem corrects itself.
2. Make sure that the environmental specifications for the printer are being met. (See [Operating environment.](#))

Page skew



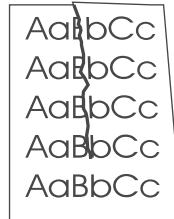
1. Print a few more pages to see if the problem corrects itself.
2. Verify that there are no torn pieces of paper inside the printer.
3. Make sure that paper is loaded correctly and that all adjustments have been made. (See [Loading trays](#).) Make sure that the guides in the tray are not too tight or too loose against the paper.
4. Turn over the stack of paper in the tray. Also, try rotating the paper 180°.
5. Make sure that the type and quality of the paper you are using meet HP specifications. (See [Paper specifications](#).)
6. Make sure that the environmental specifications for the printer are being met. (See [Operating environment](#).)

Curl or wave



1. Turn over the stack of paper in the tray. Also, try rotating the paper 180°.
2. Make sure that the type and quality of the paper you are using meet HP specifications. (See [Paper specifications](#).)
3. Make sure that the environmental specifications for the printer are being met. (See [Operating environment](#).)
4. Try printing to a different output bin.
5. If paper is lightweight and smooth, open the Configure Device menu at the printer control panel. On the Print Quality submenu, select **FUSER MODES**, and then select the paper type you are using. Change the setting to **LOW**, which helps reduce the heat in the fusing process. (See [Print Quality submenu](#).) You must also set the type of paper for the tray you are using. (See [Printing by type and size of media \(locking trays\)](#).)

Wrinkles or creases



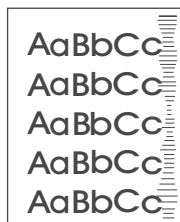
1. Print a few more pages to see if the problem corrects itself.
2. Make sure that the environmental specifications for the printer are being met. (See [Operating environment](#).)
3. Turn over the stack of paper in the tray. Also, try rotating the paper 180°.
4. Make sure that paper is loaded correctly and all adjustments have been made. (See [Loading trays](#).)
5. Make sure that the type and quality of the paper you are using meet HP specifications. (See [Paper specifications](#).)
6. If envelopes are creasing, try storing envelopes so that they lie flat.

Vertical white lines



1. Print a few more pages to see if the problem corrects itself.
2. Make sure that the type and quality of the paper you are using meet HP specifications. (See [Paper specifications](#).)
3. Replace the print cartridge.

Tire tracks

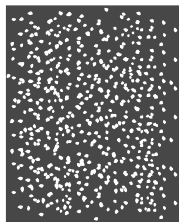


This defect typically occurs when the print cartridge has far exceeded its rated life of 6,000 (Q6511A) or 12,000 (Q6511X) pages. For example, if you are printing a very large quantity of pages with very little toner coverage.

1. Replace the print cartridge.

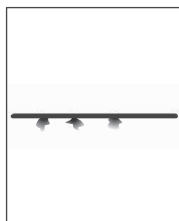
2. Reduce the number of pages that you print with very low toner coverage.

White spots on black



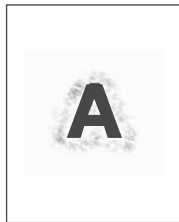
1. Print a few more pages to see if the problem corrects itself.
2. Make sure that the type and quality of the paper you are using meet HP specifications. (See [Paper specifications](#).)
3. Make sure that the environmental specifications for the printer are being met. (See [Operating environment](#).)
4. Replace the print cartridge.

Scattered lines



1. Make sure that the type and quality of the paper you are using meet HP specifications. (See [Paper specifications](#).)
2. Make sure that the environmental specifications for the printer are being met. (See [Operating environment](#).)
3. Turn over the stack of paper in the tray. Also, try rotating the paper 180°.
4. Open the Configure Device menu at the printer control panel. Open the Print Quality submenu and change the **TONER DENSITY** setting. (See [Print Quality submenu](#).)
5. Open the Configure Device menu at the printer control panel. On the Print Quality submenu, open **OPTIMIZE** and set **LINE DETAIL=ON**.

Blurred print



1. Make sure that the type and quality of the paper you are using meet HP specifications. (See [Paper specifications](#).)
2. Make sure that the environmental specifications for the printer are being met. (See [Operating environment](#).)
3. Turn over the stack of paper in the tray. Also, try rotating the paper 180°.
4. Do not use paper that already has been run through the printer.
5. Decrease the toner density. Open the Configure Device menu at the printer control panel. Open the Print Quality submenu and change the **TONER DENSITY** setting. (See [Print Quality submenu](#).)
6. Open the Configure Device menu at the printer control panel. On the Print Quality submenu, open **OPTIMIZE** and set **HIGH TRANSFER=ON**. (See [Print Quality submenu](#).)

Random image repetition



If an image that appears at the top of the page (in solid black) repeats further down the page (in a gray field), the toner might not have been completely erased from the last job. (The repeated image might be lighter or darker than the field it appears in.)

- Change the tone (darkness) of the field that the repeated image appears in.
- Change the order in which the images are printed. For example, have the lighter image at the top of the page, and the darker image farther down the page.
- From your software application, rotate the whole page 180° to print the lighter image first.
- If the defect occurs later in a print job, turn the printer power off for 10 minutes, and then turn the printer power on to restart the print job.

Troubleshooting network printing problems

NOTE

HP recommends that you use the printer CD-ROM to install and set up the printer on a network.

- Print a configuration page (see [Configuration page](#)). If an HP Jetdirect print server is installed, printing a configuration page also prints a second page that shows the network settings and status.
- See the **HP Jetdirect Print Server Administrator's Guide** on the printer CD-ROM for help and for more information about the Jetdirect configuration page. To reach the guide, select the appropriate print server series, select the appropriate print server product, and then click **troubleshoot a problem**.
- Try printing the job from another computer.
- To verify that a printer works with a computer, use a parallel or USB cable to connect it directly to a computer. You will have to reinstall the printing software. Print a document from a program that has printed correctly in the past. If this works, a problem with the network might exist.
- Contact your network administrator for assistance.

Troubleshooting common Windows problems

Error message:

"Error Writing to LPTx" in Windows 9x.

Cause	Solution
Media is not loaded.	Make sure that paper or other print media is loaded in the trays.
The cable is defective or loose.	Make sure that the cables are connected correctly, the printer is on, and the Ready light is on.
The printer is plugged into a power strip and is not receiving enough power.	Unplug the power cord from the power strip and plug it into another electrical outlet.
The input/output setting is incorrect.	Click Start , click Settings , and then click Printers . Right-click the HP LaserJet 2400 series printer driver and select Properties . Click Details and then click Port Settings . Click to clear the check mark from the Check Port State before Printing box. Click OK . Click Spool Setting and then click Print Directly to Printer . Click OK .

Error message:

"General Protection FaultException OE"

"Spool32"

"Illegal Operation"

Cause	Solution
	<p>Close all software programs, restart Windows, and try again.</p> <p>Select a different printer driver. If the HP LaserJet 2400 series PCL 6 driver is selected, switch to a PCL 5e or PS printer driver. You can usually do this from a software program.</p> <p>Delete all temp files from the Temp subdirectory. You can determine the name of the directory by editing the AUTOEXEC.BAT file and looking for the statement "Set Temp =". The name after this statement is the temp directory. It is usually C:\TEMP by default, but can be redefined.</p> <p>See the Microsoft Windows documentation that came with your computer for more information about Windows error messages.</p>

Troubleshooting common Macintosh problems

In addition to the problems that are listed in [Solving general printing problems](#), this section lists problems that can occur when using Mac OS 9.x, or Mac OS X.

NOTE

Setup for USB and IP printing is performed through the **Desktop Printer Utility**. The printer will **not** appear in the Chooser.

Problems with Mac OS 9.x

The printer name or IP address does not show or verify in the Desktop Printer Utility.

Cause	Solution
The printer might not be ready.	Make sure that the cables are connected correctly, the printer is on, and the ready light is on. If you are connecting through a USB or Ethernet hub, try connecting directly to the computer or use a different port.
The wrong connection type might be selected.	Make sure that Printer (USB) or Printer (LPR) is selected in the Desktop Printer Utility , depending on the type of connection that exists between the printer and the computer.
The wrong printer name or IP address is being used.	Check the printer name or IP address by printing a configuration page. See Configuration page . Verify that the printer name or IP address on the configuration page matches the printer name or IP address in the Desktop Printer Utility .
The interface cable might be defective or of poor quality.	Replace the interface cable. Make sure to use a high-quality cable.

The PostScript Printer Description (PPD) file for the printer does not appear as a selection in the Desktop Printer Utility.

Cause	Solution
The printer software might not have been installed or was installed incorrectly.	Make sure that the HP LaserJet 2400 series PPD is in the following hard drive folder: <code>System Folder/Extensions/Printer Descriptions</code> . If necessary, reinstall the software. See the getting started guide for instructions.
The PostScript Printer Description (PPD) file is corrupt.	Delete the PPD file from the following hard drive folder: <code>System Folder/Extensions/Printer Descriptions</code> . Reinstall the software. See the getting started guide for instructions.

A print job was not sent to the printer that you wanted.

Cause	Solution
The print queue might be stopped.	Restart the print queue. Open the Printing menu in the top menu bar and click Start Print Queue .

Problems with Mac OS 9.x (continued)

A print job was not sent to the printer that you wanted.

Cause	Solution
The wrong printer name or IP address is being used. Another printer that has the same or a similar name or IP address might have received your print job.	Check the printer name or IP address by printing a configuration page. See Configuration page . Verify that the printer name or IP address on the configuration page matches the printer name or IP address in the Desktop Printer Utility .
The printer might not be ready.	Make sure that the cables are connected correctly, the printer is on, and the ready light is on. If you are connecting through a USB or Ethernet hub, try connecting directly to the computer or use a different port.
The interface cable might be defective or of poor quality.	Replace the interface cable. Make sure to use a high-quality cable.

You cannot use the computer while the printer is printing.

Cause	Solution
Background Printing has not been selected.	For LaserWriter 8.6 and later: Turn Background Printing on by selecting Print Desktop on the File menu and then clicking Background Printing .

An encapsulated PostScript (EPS) file does not print with the correct fonts.

Cause	Solution
This problem occurs with some programs.	<ul style="list-style-type: none">• Try downloading the fonts that are contained in the EPS file to the printer before printing.• Send the file in ASCII format instead of binary encoding.

Your document is not printing with New York, Geneva, or Monaco fonts.

Cause	Solution
The printer might be substituting fonts.	Click Options in the Page Setup dialog box to clear substituted fonts.

You are unable to print from a third-party USB card.

Cause	Solution
This error occurs when the software for USB printers is not installed.	When adding a third-party USB card, you might need the Apple USB Adapter Card Support software. The most current version of this software is available from the Apple Web site.

Problems with Mac OS 9.x (continued)

When connected with a USB cable, the printer does not appear in the Desktop Printer Utility or the Apple System Profiler after the driver is selected.

Cause	Solution
This problem is caused by either a software or hardware component.	<p>Software troubleshooting</p> <ul style="list-style-type: none">• Check that your Macintosh supports USB.• Verify that your Macintosh operating system is Mac OS 9.1 or later.• Ensure that your Macintosh has the appropriate USB software from Apple. <hr/> <p>NOTE</p> <p>The iMac and Blue G3 desktop Macintosh systems meet all of the requirements to connect to a USB device.</p> <hr/> <p>Hardware troubleshooting</p> <ul style="list-style-type: none">• Check that the printer is turned on.• Verify that the USB cable is connected correctly.• Check that you are using the appropriate high-speed USB cable.• Ensure that you do not have too many USB devices drawing power from the chain. Disconnect all of the devices from the chain and connect the cable directly to the USB port on the host computer.• Check to see if more than two nonpowered USB hubs are connected in a row on the chain. Disconnect all of the devices from the chain and connect the cable directly to the USB port on the host computer. <hr/> <p>NOTE</p> <p>The iMac keyboard is a nonpowered USB hub.</p> <hr/>

Problems with Mac OS X

The printer driver is not listed in Print Center.

Cause	Solution
The printer software might not have been installed or was installed incorrectly.	Make sure that the HP LaserJet 2400 series PPD is in the following hard drive folder: <code>Library/Printers/PPDs/Contents/Resources/<lang>.lproj</code> , where “<lang>” represents the two-letter language code for the language that you are using. If necessary, reinstall the software. See the getting started guide for instructions.
The Postscript Printer Description (PPD) file is corrupt.	Delete the PPD file from the following hard drive folder: <code>Library/Printers/PPDs/Contents/Resources/<lang>.lproj</code> , where “<lang>” represents the two-letter language code for the language that you are using. Reinstall the software. See the getting started guide for instructions.

Problems with Mac OS X (continued)

The printer name, IP address, or Rendezvous host name does not appear in the printer list box in the print center.

Cause	Solution
The printer might not be ready.	Make sure that the cables are connected correctly, the printer is on, and the ready light is on. If you are connecting through a USB or Ethernet hub, try connecting directly to the computer or use a different port.
The wrong connection type might be selected.	Make sure that USB, IP Printing, or Rendezvous is selected, depending on the type of connection that exists between the printer and the computer.
The wrong printer name, IP address, or Rendezvous host name is being used.	Check the printer name, IP address, or Rendezvous host name by printing a configuration page See Configuration page . Verify that the name, IP address, or Rendezvous host name on the configuration page matches the printer name, IP address, or Rendezvous host name in the Print Center.
The interface cable might be defective or of poor quality.	Replace the interface cable. Make sure to use a high-quality cable.

The printer driver does not automatically set up your selected printer in Print Center.

Cause	Solution
The printer might not be ready.	Make sure that the cables are connected correctly, the printer is on, and the ready light is on. If you are connecting through a USB or Ethernet hub, try connecting directly to the computer or use a different port.
The printer software might not have been installed or was installed incorrectly.	Make sure that the HP LaserJet 2400 series PPD is in the following hard drive folder: Library/Printers/PPDs/Contents/Resources/<lang>.lproj, where "<lang>" represents the two-letter language code for the language that you are using. If necessary, reinstall the software. See the getting started guide for instructions.
The Postscript Printer Description (PPD) file is corrupt.	Delete the PPD file from the following hard drive folder: Library/Printers/PPDs/Contents/Resources/<lang>.lproj, where "<lang>" represents the two-letter language code for the language that you are using. Reinstall the software. See the getting started guide for instructions.
The printer might not be ready.	Make sure that the cables are connected correctly, the printer is on, and the ready light is on. If you are connecting through a USB or Ethernet hub, try connecting directly to the computer or use a different port.
The interface cable might be defective or of poor quality.	Replace the interface cable. Make sure to use a high-quality cable.

A print job was not sent to the printer that you wanted.

Cause	Solution
The print queue might be stopped.	Restart the print queue. Open print monitor and select Start Jobs .

Problems with Mac OS X (continued)

A print job was not sent to the printer that you wanted.

Cause	Solution
The wrong printer name or IP address is being used. Another printer with the same or similar name, IP address, or Rendezvous host name might have received your print job.	Check the printer name, IP address, or Rendezvous host name by printing a configuration page See Configuration page . Verify that the name, IP address, or Rendezvous host name on the configuration page matches the printer name, IP address, or Rendezvous host name in the Print Center.

An encapsulated PostScript (EPS) file does not print with the correct fonts.

Cause	Solution
This problem occurs with some programs.	<ul style="list-style-type: none">• Try downloading the fonts that are contained in the EPS file to the printer before printing.• Send the file in ASCII format instead of binary encoding.

You are unable to print from a third-party USB card.

Cause	Solution
This error occurs when the software for USB printers is not installed.	When adding a third-party USB card, you might need the Apple USB Adapter Card Support software. The most current version of this software is available from the Apple Web site.

Problems with Mac OS X (continued)

When connected with a USB cable, the printer does not appear in the Macintosh Print Center after the driver is selected.

Cause	Solution
This problem is caused by either a software or a hardware component.	<p>Software troubleshooting</p> <ul style="list-style-type: none">• Check that your Macintosh supports USB.• Verify that your Macintosh operating system is Mac OS X version 10.1 or later.• Ensure that your Macintosh has the appropriate USB software from Apple. <p>Hardware troubleshooting</p> <ul style="list-style-type: none">• Check that the printer is turned on.• Verify that the USB cable is connected correctly.• Check that you are using the appropriate high-speed USB cable.• Ensure that you do not have too many USB devices drawing power from the chain. Disconnect all of the devices from the chain, and connect the cable directly to the USB port on the host computer.• Check to see if more than two nonpowered USB hubs are connected in a row on the chain. Disconnect all of the devices from the chain and connect the cable directly to the USB port on the host computer. <hr/> <p>NOTE</p> <p>The iMac keyboard is a nonpowered USB hub.</p> <hr/>

Troubleshooting common PostScript problems

The following situations are specific to the PostScript (PS) language and might occur when several printer languages are being used. Check the control-panel display for messages that might help resolve problems.

NOTE

To receive a printed or screen message when PS errors occur, open the **Print Options** dialog box and click the selection next to the PS Errors section that you want.

General problems

The job prints in Courier (the printer's default typeface) instead of the typeface that you requested.

Cause	Solution
The requested typeface is not downloaded.	Download the font that you want and send the print job again. Verify the type and location of the font. Download the font to the printer if applicable. Check the software documentation for more information.

A legal page prints with clipped margins.

Cause	Solution
The print job was too complex.	You might need to print your job at 600 dots per inch, reduce the complexity of the page, or install more memory.

A PS error page prints.

Cause	Solution
The print job might not be PS.	Make sure that the print job is a PS job. Check to see whether the software application expected a setup or PS header file to be sent to the printer.

Specific errors

Limit Check Error

Cause	Solution
The print job was too complex.	You might need to print your job at 600 dots per inch (dpi), reduce the complexity of the page, or install more memory.

VM Error

Cause	Solution
A font error occurred.	Select unlimited downloadable fonts from the printer driver.

Range Check

Cause	Solution
A font error occurred.	Select unlimited downloadable fonts from the printer driver.

A

Supplies and accessories

This section provides information about ordering parts, supplies, and accessories. Use only parts and accessories that are specifically designed for this printer.

- [Ordering parts, accessories, and supplies](#)
- [Part numbers](#)

Ordering parts, accessories, and supplies

Several methods are available for ordering parts, supplies, and accessories:

- [Ordering directly from HP](#)
- [Ordering through service or support providers](#)
- [Ordering directly through the embedded Web server \(for printers that are connected to a network\)](#)
- [Ordering directly through the HP Toolbox software \(for printers that are directly connected to a computer\)](#)

Ordering directly from HP

You can obtain the following directly from HP:

- **Replacement parts** To order replacement parts in the U.S. see <http://www.hp.com/go/hpparts/>. Outside the United States, order parts by contacting your local authorized HP service center.
- **Supplies and accessories** To order supplies in the U.S., see <http://www.hp.com/go/ljsupplies>. To order supplies worldwide, see <http://www.hp.com/ghp/buyonline.html>. To order accessories, see www.hp.com/support/lj2410, <http://www.hp.com/support/lj2420>, or <http://www.hp.com/support/lj2430>.

Ordering through service or support providers

To order a part or accessory, contact an HP-authorized service or support provider. (See [HP customer care](#).)

Ordering directly through the embedded Web server (for printers that are connected to a network)

Use the following steps to order printing supplies directly through the embedded Web server. (See [Using the embedded Web server](#) for an explanation of this feature.)

To order directly through the embedded Web server

1. In the Web browser on the computer, type the IP address for the printer. The printer status window appears.
2. Select the **Setting** tab at the top of the window.
3. If asked to provide a password, type the password.
4. On the left side of the Device Configuration window, double-click **Order Supplies**. This provides a URL from which to purchase consumables. Supplies information with part numbers and printer information is provided.
5. Select the part numbers that you want to order and follow the instructions on the screen.

Ordering directly through the HP Toolbox software (for printers that are directly connected to a computer)

The HP Toolbox software gives you the ability to order supplies and accessories directly from the computer. To order supplies by using the HP Toolbox, click **Toolbox Links**, and then click **Order Supplies**. A link is provided to the HP Web site for ordering supplies.

Part numbers

The following list of accessories was current at the time of printing. Ordering information and availability of the accessories might change during the life of the printer.

Paper-handling accessories

Item	Description	Part number
Optional 500-sheet tray and feeder unit	Optional tray to increase paper capacity. Holds Letter, A4, Legal, A5, B5 (JIS), Executive, and 8.5 x 13 inch paper sizes. Note: This tray is included with the HP LaserJet 2430t, 2430tn, and 2430dtn models.	Q5963A

Print cartridges

Item	Description	Part number
HP LaserJet print cartridge	6,000-page cartridge	Q6511A
	12,000-page cartridge	Q6511X

Memory

Item	Description	Part number
100-pin DDR memory DIMM (dual inline memory module) Boosts the ability of the printer to handle large or complex print jobs.	32 MB	Q3982A
	48 MB	Q6007A
	64 MB	Q2625A
	128 MB	Q2626A
	256 MB	Q2627A

Cables and interfaces

Item	Description	Part number
Enhanced I/O (EIO) cards HP Jetdirect print server multi-protocol EIO network cards:	HP Jetdirect 620n Fast Ethernet (10/100Base-TX) print server	J7934A
	HP Jetdirect 680n 802.11b wireless internal print server	J6058A
	HP Jetdirect Connectivity card for USB, serial, and LocalTalk connections	J4135A
Parallel cables	2-meter IEEE 1284-B cable	C2950A
	3-meter IEEE 1284-B cable	C2951A
USB cable	2-meter A to B cable	C6518A

Print media

For more information about media supplies, go to <http://www.hp.com/go/ljsupplies>.

Item	Description	Part number
HP Soft Gloss laser paper For use with HP LaserJet printers. Coated paper, good for business documents with high impact, such as brochures, sales material, and documents with graphics and photographic images. Specifications: 32 lb (120 g/m ²).	Letter (220 x 280 mm), 50 sheets/box	C4179A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 50 sheets/box	C4179B/Asia-Pacific countries/regions and Europe
HP LaserJet tough paper For use with HP LaserJet printers. This satin-finish paper is waterproof and tear-proof, yet doesn't compromise on print quality or performance. Use it for signs, maps, menus, and other business applications.	Letter (8.5 x 11 inch), 50 sheets to a carton	Q1298A/North America
	A4 (210 x 297 mm), 50 sheets to a carton	Q1298B/Asia-Pacific countries/regions and Europe

Item	Description	Part number
HP Premium Choice LaserJet paper HP's brightest LaserJet paper. Expect spectacular color and crisp black from this paper that is extra smooth and brilliantly white. Ideal for presentations, business plans, external correspondence and other high-value documents Specifications: 98 bright, 32 lb. (75 g/m ²).	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPU1132/North America
	Letter (8.5 x 11 inch), 250 sheets/ream, 6-ream carton	HPU1732 North America
	A4 (210 x 297 mm), 5-ream carton	Q2397A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 250 sheet/ream, 5-ream carton	CHP412/Europe
	A4 (210 x 297 mm), 500 sheet/ream, 5-ream carton	CHP410/Europe
	A4 (210 x 297 mm), 160 g/m ² , 500 sheet/ream, 5-ream carton	CHP413/Europe
HP LaserJet paper For use with HP LaserJet printers. Good for letterhead, high-value memos, legal documents, direct mail, and correspondence. Specifications: 96 bright, 24 lb (90 g/m ²).	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPJ1124/North America
	Legal (8.5 x 14 inch), 500 sheets/ream, 10-ream carton	HPJ1424/North America
	A Letter (220 x 280 mm), 500 sheets/ream, 5-ream carton	Q2398A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	Q2400A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream	CHP310/Europe
HP Printing paper For use with HP LaserJet and inkjet printers. Created especially for small and home offices. Heavier and brighter than copier paper. Specifications: 92 bright, 22 lb.	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPP1122/North America and Mexico
	Letter (8.5 x 11 inch), 500 sheets/ream, 3-ream carton	HPP113R/North America
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	CHP210/Europe
	A4 (210 x 297 mm), 300 sheets/ream, 5-ream carton	CHP213/Europe

Item	Description	Part number
<p>HP Multipurpose paper</p> <p>For use with all office equipment-laser and inkjet printers, copiers, and fax machines. Created for businesses that want one paper for all their office needs. Brighter and smoother than other office papers.</p> <p>Specifications: 90 bright, 20 lb (75 g/m²).</p>	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPM1120/North America
	Letter (8.5 x 11 inch), 500 sheets/ream, 5-ream carton	HPM115R/North America
	Letter (8.5 x 11 inch), 250 sheets/ream, 12-ream carton	HP25011/North America
	Letter (8.5 x 11 inch), 3-hole, 500 sheets/ream, 10-ream carton	HPM113H/North America
	Legal (8.5 x 14 inch), 500 sheets/ream, 10-ream carton	HPM1420/North America
<p>HP Office paper</p> <p>For use with all office equipment-laser and inkjet printers, copiers, and fax machines. Good for high-volume printing.</p> <p>Specifications: 84 bright, 20 lb (75 g/m²).</p>	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPC8511/North America and Mexico
	Letter (8.5 x 11 inch), 3-hole, 500 sheets/ream, 10-ream carton	HPC3HP/North America
	Legal (8.5 x 14 inch), 500 sheets/ream, 10-ream carton	HPC8514/North America
	Letter (8.5 x 11 inch), Quick Pack; 2,500-sheet carton	HP2500S/North America and Mexico
	Letter (8.5 x 11 inch), Quick Pack 3-hole; 2,500-sheet carton	HP2500P/North America
	A Letter (220 x 280 mm), 500 sheets/ream, 5-ream carton	Q2408A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	Q2407A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	CHP110/Europe
	A4 (210 x 297 mm), Quick Pack; 2500 sheets/ream, 5-ream carton	CHP113/Europe

Item	Description	Part number
<p>HP Office recycled paper</p> <p>For use with all office equipment-laser and inkjet printers, copiers, and fax machines. Good for high-volume printing.</p> <p>Satisfies U.S. Executive Order 13101 for environmentally preferable products.</p> <p>Specifications: 84 bright, 20 lb, 30% post-consumer content.</p>	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPE1120/North America
	Letter (8.5 x 11 inch), 3-hole, 500 sheets/ream, 10-ream carton	HPE113H/North America
	Legal (8.5 x 14 inch), 500 sheets/ream, 10-ream carton	HPE1420/North America
<p>HP LaserJet transparencies</p> <p>For use only with HP LaserJet monochrome printers. For crisp, sharp text and graphics, rely on the only transparencies specifically designed and tested to work with monochrome HP LaserJet printers.</p> <p>Specifications: 4.3-mil thickness.</p>	Letter (8.5 x 11 inch), 50 sheets to a carton	92296T/North America, Asia-Pacific countries/regions, and Europe
	A4 (210 x 297 mm), 50 sheets to a carton	922296U/Asia-Pacific countries/regions and Europe

B

Control panel menus

You can perform most routine printing tasks from the computer by using the program or printer driver. These two methods are the most convenient way to control the printer, and they will override the printer-control-panel settings. See the Help file for your program, or, for more information about gaining access to the printer driver, see [Using the printer driver](#).

You can also control the printer by changing settings at the printer control panel. Use the control panel to gain access to printer features that are not supported by the program or printer driver.

You can print a menu map at the printer control panel that shows the settings with the currently selected values (see [Menu map](#)). The sections that follow list the settings and possible values. In the Values column, the default value for each setting is the one with an asterisk (*) next to it.

Some menus or menu items appear only if certain options are installed in the printer.

This section explains the following menus:

- [Retrieve Job menu](#)
- [Information menu](#)
- [Paper Handling menu](#)
- [Configure Device menu](#)
- [Diagnostics menu](#)
- [Service menu](#)

Retrieve Job menu

This menu provides a list of the stored jobs in the printer and access to all the job storage features. You can print or delete these jobs at the printer control panel. See [Using job-storage features](#) for more information about using this menu.

NOTE

If you turn the printer power off, all stored jobs are deleted.

The section that follows lists the settings and possible values. In the Values column, the default value for each setting is the one with an asterisk (*) next to it.

Item	Values	Explanation
PRINT STORED JOB LIST	There is no value to select.	Prints a page showing all jobs stored on the device.

Item	Values	Explanation
[USERNAME]	[JOBNAME] ALL PRIVATE JOBS NO STORED JOBS	<p>The name of the person who sent the job.</p> <p>[JOBNAME]: The name of the job stored in the printer. Select one of your jobs or all of your private jobs (those that were assigned a PIN in the printer driver).</p> <ul style="list-style-type: none"> • Print: Prints the selected job. PIN REQUIRED TO PRINT: A prompt that appears for jobs that were assigned a personal identification number (PIN) in the printer driver. You must enter the PIN to print the job. COPIES: You can select the number of copies that you want to print (1 to 32000). • Delete: Deletes the selected job from the printer. PIN REQUIRED TO DELETE: A prompt that appears for jobs that were assigned a PIN in the printer driver. You must enter the PIN to delete the job. <p>ALL PRIVATE JOBS: Appears if two or more private jobs are stored in the printer. Selecting this item prints all of the private jobs that are stored in the printer for that user, after the correct PIN is entered.</p> <p>NO STORED JOBS: Indicates that no stored jobs are available to print or delete.</p>

Information menu

The Information menu contains printer information pages that give details about the printer and its configuration. Scroll to the information page that you want, and then press ✓ (**SELECT** button).

Item	Explanation
PRINT MENU MAP	The menu map shows the layout and current settings of the printer control panel menu items. For more information, see Menu map .
PRINT CONFIGURATION	The configuration page shows the current printer configuration. If an HP Jetdirect print server is installed, an HP Jetdirect configuration page will print out as well. For more information, see Configuration page .
PRINT SUPPLIES STATUS PAGE	The supplies status page shows the levels of the supplies for the printer, calculation of the number of pages remaining, and cartridge-usage information. This page is available only if you are using genuine HP supplies. For more information, see Supplies status page .
PRINT USAGE	<p>The usage page shows the quantity of pages printed, as well as the paper source used. It also shows the number of one-sided versus two-sided pages that have been printed.</p> <hr/> <p>NOTE</p> <p>This item appears only if a mass-storage device that contains a recognized file system is installed in the printer, such as an optional CompactFlash card. This item generates a page containing information that can be used for accounting purposes.</p> <hr/>
PRINT FILE DIRECTORY	This item appears only if a mass-storage device that contains a recognized file system is installed in the printer, such as an optional CompactFlash card. The file directory shows information for all installed mass-storage devices. For more information, see Printer memory .
PRINT PCL FONT LIST	The PCL font list shows all the PCL fonts that are currently available to the printer. For more information, see PS or PCL font list .
PRINT PS FONT LIST	The PS font list shows all the PS fonts that are currently available to the printer. For more information, see PS or PCL font list .

Paper Handling menu

If paper-handling settings are correctly configured at the printer control panel, you can print by selecting the type and size of media in the program or the printer driver. For more information about configuring for media types and sizes, see [Printing by type and size of media \(locking trays\)](#). For more information about supported media types and sizes, see [Supported types and sizes of print media](#) and [Paper specifications](#).

Some items on this menu (such as duplex and manual feed) are available in the program or the printer driver (if the appropriate driver is installed). Program and printer-driver settings override control-panel settings. For more information, see [Using the printer driver](#).

The following table lists the settings and possible values. In the Values column, the default value for each setting is the one that has an asterisk (*) next to it.

Item	Values	Explanation
TRAY 1 SIZE	*ANY SIZE LETTER LEGAL EXECUTIVE A4 A5 B5 (JIS) EXECUTIVE (JIS) D POSTCARD (JIS) 16K ENVELOPE #10 ENVELOPE MONARCH ENVELOPE C5 ENVELOPE DL ENVELOPE B5 CUSTOM ANY CUSTOM	Use this item to set the value to correspond with the media size that is currently loaded in tray 1. ANY SIZE: If both the type and size for tray 1 are set to ANY, the printer will pull media from tray 1 first if media is loaded in the tray. A size other than ANY SIZE : The printer does not pull from this tray unless the type or size of the print job matches the type or size that is loaded in this tray.

Item	Values	Explanation
TRAY 1 TYPE	*ANY TYPE PLAIN PREPRINTED LETTERHEAD TRANSPARENCY PREPUNCHED LABELS BOND RECYCLED COLOR CARDSTOCK >164 G/M2 ROUGH ENVELOPE	<p>Use this item to set the value to correspond with the type of media that is currently loaded in tray 1.</p> <p>ANY TYPE: If both the type and size for tray 1 are set to ANY, the printer will pull media from tray 1 first if media is loaded in the tray.</p> <p>A type other than ANY TYPE: The printer does not pull from this tray unless the type or size of the print job matches the type or size that is loaded in this tray.</p>
TRAY 2 SIZE	*ANY SIZE LETTER LEGAL EXECUTIVE A4 A5 B5 (JIS) EXECUTIVE (JIS)	<p>Sets the value to correspond with the media size that is currently loaded in tray 2.</p>
TRAY 2 TYPE	*ANY TYPE PLAIN PREPRINTED LETTERHEAD TRANSPARENCY PREPUNCHED LABELS BOND RECYCLED COLOR CARDSTOCK >164 G/M2 ROUGH	<p>Sets the value to correspond with the media type that is currently loaded in tray 2.</p>

Item	Values	Explanation
TRAY 3 SIZE	*ANY SIZE LETTER LEGAL EXECUTIVE A4 A5 B5 (JIS) EXECUTIVE (JIS)	Sets the value to correspond with the media size that is currently loaded in tray 3.
TRAY 3 TYPE	*ANY TYPE PLAIN PREPRINTED LETTERHEAD TRANSPARENCY PREPUNCHED LABELS BOND RECYCLED COLOR CARDSTOCK >164 G/M2 ROUGH	Sets the value to correspond with the media type that is currently loaded in tray 3.

Item	Values	Explanation
TRAY [N] CUSTOM	UNIT OF MEASURE X DIMENSION Y DIMENSION	<p>This item appears only if a tray is set to a custom size.</p> <p>UNIT OF MEASURE: Use this option to select the unit of measure (INCHES or MILLIMETERS) to use when you set custom paper sizes for the specified tray.</p> <p>X DIMENSION: Use this item to set the measurement of the width of the paper (measurement from side to side in the tray). The options are 3.0 to 8.50 INCHES or 76 to 216 MM.</p> <p>Y DIMENSION: Use this item to set the measurement of the length of the paper (measurement from front to back in the tray). The options are 5.0 to 14.00 INCHES or 127 to 356 MM.</p> <p>After the Y DIMENSION value is selected, a summary screen appears. This screen contains feedback that summarizes all of the information that was specified on the previous three screens, such as TRAY 1 SIZE= 8.50 x 14 INCHES, Setting saved.</p>

Configure Device menu

This menu contains administrative functions.

- [Printing submenu](#)
- [Print Quality submenu](#)
- [System Setup submenu](#)
- [I/O submenu](#)
- [Resets submenu](#)

Printing submenu

Some items on this menu are available in the program or printer driver (if the appropriate driver is installed). Program and printer-driver settings override control-panel settings. In general, it is better to change these settings in the printer driver, if applicable.

The following table lists the settings and possible values. In the Values column, the default value for each setting is the one with an asterisk (*) next to it.

Item	Values	Explanation
COPIES	*1 to 32000	<p>Sets the default number of copies by selecting any number from 1 to 32000. Use ▲ (Up button) or ▼ (Down button) to select the number of copies. This setting applies only to print jobs that do not have the number of copies specified in the program or printer driver, such as a UNIX or Linux application.</p> <hr/> <p>NOTE</p> <p>It is best to set the number of copies in the program or printer driver. (Program and printer-driver settings override control-panel settings.)</p> <hr/>

Item	Values	Explanation
DEFAULT PAPER SIZE	*LETTER LEGAL EXECUTIVE STATEMENT 8.5 x 13 A4 A5 B5 (JIS) EXECUTIVE (JIS) D POSTCARD (JIS) 16K ENVELOPE #10 ENVELOPE MONARCH ENVELOPE C5 ENVELOPE DL ENVELOPE B5 CUSTOM	Sets the default image size for paper and envelopes. (The item name changes from paper to envelope as you scroll through the available sizes.) This setting applies only to print jobs that do not have the paper size specified in the program or printer driver.
DEFAULT CUSTOM PAPER	UNIT OF MEASURE X DIMENSION Y DIMENSION	Sets a default custom paper size for tray 1. This menu appears only if the Custom-Standard switch in the selected tray is set to Custom.
PAPER DESTINATION	*STANDARD OUTPUT FACE UP BIN	Configures the output bin destination.
DUPLEX	*OFF ON	Appears only for printers that include a built-in duplexer. Set the value to ON to print on both sides (duplex) or OFF to print on one side (simplex) of a sheet of paper.
DUPLEX BINDING	*LONG EDGE SHORT EDGE	Changes the binding edge for duplex printing. The menu item appears only if the printer includes a built-in duplexer and DUPLEX=ON .
OVERRIDE A4/LETTER	NO *YES	Allows the printer to print an A4-size job on letter-size paper if A4-size paper is not loaded in the printer (or vice versa).
MANUAL FEED	*OFF ON	Feeds the paper manually from tray 1, rather than automatically from a tray. If MANUAL FEED=ON and tray 1 is empty, the printer goes offline when it receives a print job. MANUALLY FEED [PAPER SIZE] appears on the printer control-panel display.
EDGE-TO-EDGE OVERRIDE	*NO YES	Turns the edge-to-edge mode on or off for all print jobs.

Item	Values	Explanation
COURIER FONT	*REGULAR DARK	Selects the version of Courier font to use: REGULAR: The internal Courier font available on the HP LaserJet 4 series printers. DARK: The internal Courier font that is available on the HP LaserJet III series printers.
WIDE A4	*NO YES	Changes the number of characters that can be printed on a single line of A4-size paper. NO: Up to 78 10-pitch characters can be printed on one line. YES: Up to 80 10-pitch characters can be printed on one line.
PRINT PS ERRORS	*OFF ON	Determines whether a PS error page prints or not. OFF: PS error page never prints. ON: PS error page prints when PS errors occur.

Item	Values	Explanation
PCL	COPIES ORIENTATION FONT SOURCE FONT NUMBER FONT PITCH FONT POINT SIZE SYMBOL SET APPEND CR TO LF SUPPRESS BLANK PAGES	<p>COPIES: Sets vertical spacing from 5 to 128 lines for default paper size.</p> <p>ORIENTATION: Allows you to select default page orientation as LANDSCAPE or PORTRAIT.</p> <hr/> <p>NOTE</p> <p>It is best to set the page orientation in the program or printer driver. (Program and printer-driver settings override control-panel settings.)</p> <hr/> <p>FONT SOURCE: Allows you to select the font source as Internal, CARD SLOT 1, 2, or 3, INTERNAL DISK, or EIO DISK 1, 2, or 3.</p> <p>FONT NUMBER: The printer assigns a number to each font and lists the numbers on the PCL Font List. The font number appears in the Font # column of the printout.</p> <p>FONT PITCH: Selects the font pitch. This item might not appear, depending on the font selected.</p> <p>FONT POINT SIZE: Selects the font point size. This appears only if a font with a scalable point size is selected as the default font.</p> <p>SYMBOL SET: Selects any one of several available symbol sets at the printer control panel. A symbol set is a unique grouping of all the characters in a font. PC-8 or PC-850 is recommended for line-draw characters.</p> <p>APPEND CR TO LF: Select YES to append a carriage return to each line feed that the printer encountered in backward-compatible PCL jobs (pure text, no job control). Some environments, such as UNIX, indicate a new line using only the line feed control code. This option allows you to append the required carriage return to each line feed.</p> <p>SUPPRESS BLANK PAGES: When generating your own PCL, extra form feeds are included that would cause a blank page(s) to be printed. Select YES for formfeeds to be ignored if the page is blank.</p>

Print Quality submenu

Some items on this menu are available in the program or printer driver (if the appropriate driver is installed). Program and printer-driver settings override control-panel settings. For more information, see [Using the printer driver](#). In general, it is best to change these settings in the printer driver, if applicable.

The following table lists the settings and possible values. In the Values column, the default value for each setting is the one with an asterisk (*) next to it.

Item	Values	Explanation
SET REGISTRATION	PRINT TEST PAGE SOURCE ADJUST TRAY [N]	<p>Shifts the margin alignment to center the image on the page from top to bottom, and left to right. You can also align the image that is printed on the front with the image that is printed on the back.</p> <p>PRINT TEST PAGE: Prints a test page that shows the current registration settings.</p> <p>SOURCE: Selects the tray for which you want to print the test page.</p> <p>ADJUST TRAY [N] : Sets the registration for the specified tray, where [N] is the number of the tray. A selection appears for each tray that is installed, and registration must be set for each tray.</p> <ul style="list-style-type: none"> • X1 SHIFT: Registration of the image on the paper from side to side, as the paper lies in the tray. For duplexing, this side is the second side (back) of the paper. • X2 SHIFT: Registration of the image on the paper from side to side, as the paper lies in the tray, for the first side (front) of a duplexed page. This item appears only if the printer includes a built-in duplexer and DUPLEX is ON. Set the X1 SHIFT first. • Y SHIFT: Registration of the image on the paper from top to bottom as the paper lies in the tray.

Item	Values	Explanation
FUSER MODES	PLAIN PREPRINTED LETTERHEAD TRANSPARENCY PREPUNCHED LABELS BOND RECYCLED COLOR LIGHT 60-75 G/M2 CARDSTOCK 164-200 G/M2 ROUGH ENVELOPE RESTORE MODES	<p>Configures the fuser mode associated with each media type.</p> <p>Change the fuser mode only if you are experiencing problems printing on certain media types. After you select a type of media, you can select a fuser mode that is available for that type. The printer supports the following modes:</p> <p>NORMAL: Used for most types of paper.</p> <p>HIGH 1: Used for rough paper.</p> <p>HIGH 2: Used for paper that has a special or rough finish.</p> <p>LOW 1: Used for lightweight media. Use this mode if you are having problems with curled paper.</p> <p>LOW 2: Used for transparencies.</p> <p>The default fuser mode is NORMAL for all print media types except transparencies (LOW 2), and rough paper (HIGH 1).</p> <hr/> <p>CAUTION</p> <p>Do not change the fuser mode for transparencies. Failure to use the LOW 2 setting while printing transparencies can result in permanent damage to the printer and fuser. Always select Transparencies as the Type in the printer driver and set the tray type at the printer control panel to TRANSPARENCY.</p> <p>When selected, RESTORE MODES resets the fuser mode for each media type back to its default setting.</p> <hr/>
RESOLUTION	300 600 *FASTRES 1200	<p>Selects the resolution. All values print at the same speed.</p> <p>300: Produces draft print quality and can be used for compatibility with the HP LaserJet III family of printers.</p> <p>600: Produces high print quality for text and can be used for compatibility with the HP LaserJet 4 family of printers.</p> <p>FASTRES 1200: Produces 1200-dpi print quality for fast, high-quality printing of business text and graphics.</p> <hr/> <p>NOTE</p> <p>It is best to change the resolution in the program or printer driver. (Program and printer-driver settings override control-panel settings.)</p> <hr/>

Item	Values	Explanation
RET	OFF LIGHT *MEDIUM DARK	<p>Use the Resolution Enhancement technology (REt) setting to produce print with smooth angles, curves, and edges.</p> <p>REt does not affect print quality if the print resolution is set to FastRes 1200. All other print resolutions benefit from REt.</p> <hr/> <p>NOTE</p> <p>It is best to change the REt setting in the program or printer driver. (Program and printer-driver settings override control-panel settings.)</p> <hr/>
ECONOMODE	ON *OFF	<p>Turn EconoMode ON (to save toner) or OFF (for high quality).</p> <p>EconoMode creates draft-quality printing by reducing the amount of toner on the printed page.</p> <hr/> <p>NOTE</p> <p>It is best to turn EconoMode on or off in the program or printer driver. (Program and printer-driver settings override control-panel settings.)</p> <hr/> <p>CAUTION</p> <p>HP does not recommend full-time use of EconoMode. If EconoMode is used full-time, it is possible that the toner supply will outlast the mechanical parts in the print cartridge.</p> <hr/>
TONER DENSITY	1 to 5 (*3)	<p>Lighten or darken the print on the page by setting the toner density. Select a setting ranging from 1 (light) to 5 (dark). The default setting of 3 usually produces the best results.</p>
SMALL PAPER MODE	*NORMAL SLOW	<p>When printing narrow media, the part of the fuser rollers that do not make contact with the media swell up and can cause wrinkles.</p>
CREATE CLEANING PAGE	There is no value to select.	<p>Press ✓ (SELECT button) to print a cleaning page (for cleaning toner from the fuser). Open the rear output bin. Follow the instructions on the cleaning page. For more information, see Cleaning the fuser.</p>
PROCESS CLEANING PAGE	There is no value to select.	<p>This item is available only after a cleaning page has been created. Follow the instructions that are printed on the cleaning page. The cleaning process might take up to 2.5 minutes.</p>
AUTO CLEANING	ON *OFF	<p>Turns auto-cleaning on or off. When auto-cleaning is turned on, the printer will print a cleaning page when the page count reaches the value set in CLEANING INTERVAL.</p>

Item	Values	Explanation
CLEANING INTERVAL	*1000 2000 5000 10000 20000	Sets the interval at which the auto cleaning is due for the printer.

System Setup submenu

Items on this menu affect printer behavior. Configure the printer according to your printing needs.

The following table lists the settings and possible values. In the Values column, the default value for each setting is the one with an asterisk (*) next to it.

Item	Values	Explanation
DATE/TIME	DATE DATE FORMAT TIME TIME FORMAT	Sets the date and time settings.
JOB STORAGE LIMIT	1 to 100 (*32)	Specifies the number of quick copy jobs that can be stored on the printer.
JOB HELD TIMEOUT	*OFF 1 HOUR 4 HOURS 1 DAY 1 WEEK	Sets the amount of time that held jobs are kept before being automatically deleted from the queue.
SHOW ADDRESS	*AUTO OFF	Defines whether or not the printer address will be shown on the display if the device is connected to a network. If AUTO is selected the IP Address of the device appears with the READY message.

Item	Values	Explanation
TRAY BEHAVIOR	USE REQUESTED TRAY MANUALLY FEED PROMPT PS DEFER MEDIA SIZE/TYPE PROMPT	<p>USE REQUESTED TRAY : Determines whether the printer tries to pull paper from a different tray than the one that you selected in the printer driver.</p> <ul style="list-style-type: none"> • EXCLUSIVELY: Sets the printer to pull paper only from the tray that you selected and not pull from another tray, even if the tray that you selected is empty. • FIRST: Sets the printer to pull from the tray that you selected first, but allows the printer to pull from another tray automatically if the tray that you selected is empty. <p>MANUALLY FEED PROMPT: Determines when the printer shows a prompt regarding pulling from tray 1 if your print job does not match the type or size that is loaded in any other tray.</p> <ul style="list-style-type: none"> • ALWAYS: Select this option if you always want to be prompted before the printer pulls from tray 1. • UNLESS LOADED: Prompts you only if tray 1 is empty. <p>PS DEFER MEDIA: Controls whether the PostScript (PS) or HP paper-handling model is used to print jobs. ENABLED causes PS to defer to the HP paper handling model. DISABLED uses the PS paper handling model.</p> <p>SIZE/TYPE PROMPT: Use this menu item to control whether the tray configuration message and its prompts are shown whenever a tray is opened and closed. These prompts instruct you to set the type or size if the tray is configured for a type or size other than the type or size that is loaded in the tray.</p>
SLEEP DELAY	1 MINUTE 15 MINUTES *30 MINUTES 60 MINUTES 90 MINUTES 2 HOURS 4 HOURS	<p>Sets how long the printer remains idle before it enters Sleep mode.</p> <p>Using Sleep mode offers the following:</p> <ul style="list-style-type: none"> • Minimizes the amount of power that the printer consumes when it is idle • Reduces wear on electronic components in the printer (turns off the display backlight, but the display is still readable) <p>The printer automatically comes out of Sleep mode when you send a print job, press a printer control panel button, open a tray, or open the top cover.</p>

Item	Values	Explanation
PERSONALITY	*AUTO PDF PS PCL	<p>Selects the default printer language (personality). The possible values are determined by which valid languages are installed in the printer.</p> <p>Normally, you should not change the printer language. If you change it to a specific printer language, the printer will not switch automatically from one language to another unless specific software commands are sent to the printer.</p>
CLEARABLE WARNINGS	*JOB ON	<p>Sets the amount of time that a clearable warning appears on the printer control-panel display.</p> <p>JOB: The clearable warning message appears until the end of the job that generated the message.</p> <p>ON: The clearable warning message appears until you press ✓ (SELECT button).</p>
AUTO CONTINUE	OFF *ON	<p>Determines how the printer reacts to errors. If the printer is on a network, you probably want to turn AUTO CONTINUE to ON.</p> <p>ON: If an error occurs that prevents printing, the message appears on the printer control-panel display, and the printer goes offline for 10 seconds before returning online.</p> <p>OFF: If an error occurs that prevents printing, the message remains on the printer control-panel display, and the printer remains offline until you press ✓ (SELECT button).</p>
CARTRIDGE LOW	STOP *CONTINUE	<p>Determines how the printer behaves if the print cartridge is low. The message first appears when about 16% (6,000-page cartridge) or about 8% (12,000-page cartridge) of the life remains in the print cartridge. Print quality is not guaranteed if you print after receiving this message.</p> <p>STOP: The printer pauses printing until you replace the print cartridge or press ✓ (SELECT button) each time you turn the printer on. The message appears until you replace the print cartridge.</p> <p>CONTINUE: The printer continues to print, and the message appears until you replace the print cartridge.</p>

Item	Values	Explanation
CARTRIDGE OUT	STOP *CONTINUE	<p>Determines how the printer reacts if the print cartridge is empty.</p> <p>STOP: The printer stops printing until you replace the print cartridge.</p> <p>CONTINUE: The printer continues to print, and the REPLACE CARTRIDGE message appears until you replace the print cartridge. HP does not guarantee print quality if you select CONTINUE after a REPLACE CARTRIDGE condition. Replace the print cartridge as soon as possible to ensure good print quality.</p> <p>If the end of drum life is reached, the printer stops, regardless of the CARTRIDGE OUT setting.</p>
JAM RECOVERY	*AUTO OFF ON	<p>Determines how the printer behaves if a jam occurs.</p> <p>AUTO: The printer automatically selects the best mode for printer jam recovery (usually ON).</p> <p>OFF: The printer does not reprint pages following a jam. Printing performance might be increased with this setting.</p> <p>ON: The printer automatically reprints pages after a jam is cleared.</p>
RAM DISK	*AUTO OFF	<p>Determines how the RAM disk is configured. (This item does not apply to printers that have less than 48 MB of RAM.)</p> <p>AUTO: Allows the printer to determine the optimal RAM-disk size based on the amount of available memory.</p> <p>OFF: The RAM is disabled.</p> <hr/> <p>NOTE</p> <p>If you change the setting from OFF to AUTO, the printer automatically reinitializes when it becomes idle.</p> <hr/>
LANGUAGE	*ENGLISH Several	Selects the language for the messages that appear on the printer control-panel display.

I/O submenu

Items on the I/O (input/output) menu affect the communication between the printer and the computer. If the printer contains an HP Jetdirect print server, you can configure basic networking parameters using the submenu. These and other parameters can also be configured through HP Web Jetadmin (see [Using HP Web Jetadmin software](#)) or other network configuration tools, such as the embedded Web server (see [Using the embedded Web server](#)).

The following table lists the settings and possible values. In the Values column, the default value for each setting is the one with an asterisk (*) next to it.

Item	Values	Explanation
I/O TIMEOUT	5 to 300 (*15 SECONDS)	<p>Select the I/O timeout period in seconds.</p> <p>This setting allows you to adjust timeout for the best performance. If data from other ports appears in the middle of your print job, increase the timeout value.</p>
PARALLEL INPUT	HIGH SPEED ADVANCED FUNCTIONS	<p>HIGH SPEED: Select YES to enable the printer to accept the faster parallel communications that are used for connections with newer computers.</p> <p>ADVANCED FUNCTIONS: Turn the bidirectional parallel communication on or off. The default is set for a bidirectional parallel port (IEEE-1284).</p> <p>The function allows the printer to send status readback messages to the computer. Turning the parallel advanced functions on might slow language switching.</p>
EMBEDDED JETDIRECT MENU	TCP/IP IPX/SPX APPLETALK DLC/LLC SECURE WEB DIAGNOSTICS	<p>TCP/IP: Select whether the TCP/IP protocol stack is enabled or disabled. You can set several TCP/IP parameters.</p> <p>Select the TCP/IP CONFIGURE METHOD to configure the EIO card. For the MANUAL option, set the values for IP ADDRESS, SUBNET MASK, LOCAL GATEWAY, and DEFAULT GATEWAY.</p> <p>IPX/SPX: Select whether the IPX/SPX protocol stack (in Novell NetWare networks, for example) is enabled or disabled.</p> <p>APPLETALK: Enable or disable an AppleTalk network.</p> <p>DLC/LLC: Select whether the DLC/LLC protocol stack is enabled or disabled.</p> <p>SECURE WEB: Specify whether the embedded Web server accepts communications by using only secure HTTP (HTTPS) or by using both HTTP and HTTPS.</p> <p>DIAGNOSTICS: Provides tests to help diagnose network hardware or TCP/IP network connection problems.</p>

Resets submenu

Items on the Resets submenu relate to returning settings to the defaults and changing settings such as Sleep Mode.

The following table lists the settings and possible values. In the Values column, the default value for each setting is the one with an asterisk (*) next to it.

Item	Values	Explanation
------	--------	-------------

RESTORE FACTORY SETTINGS	There is no value to select.	<p>Performs a simple reset and restores most of the factory (default) settings. This item also clears the input buffer for the active I/O.</p> <hr/> <p>CAUTION</p> <p>Restoring memory during a print job cancels the print job.</p> <hr/>
SLEEP MODE	<p>*ON</p> <p>OFF</p>	<p>Turns Sleep mode on or off. Using Sleep mode offers the following advantages:</p> <ul style="list-style-type: none"> • Minimizes the amount of power that the printer consumes when it is idle • Reduces wear on electronic components in the printer (turns off the display backlight, but the display is still readable) <p>The printer automatically comes out of Sleep mode when you send a print job, press a printer control panel button, open a tray, or open the top cover.</p> <p>You can set how long the printer remains idle before it enters Sleep mode.</p>

Diagnostics menu

Administrators can use this submenu to isolate parts and to troubleshoot jam and print-quality issues.

The following table lists the settings and possible values. In the Values column, the default value for each setting is the one that has an asterisk (*) next to it.

Item	Values	Explanation
PRINT EVENT LOG	There is no value to select.	Press ✓ (SELECT button) to generate a list of the 50 most recent entries in the event log. The printed event log shows error number, page count, error code, and description or personality.
SHOW EVENT LOG	There is no value to select.	Press ✓ (SELECT button) to scroll through the contents of the event log at the printer control panel, which lists up to the 50 most recent events. Use ▲ (UP button) or ▼ (DOWN button) to scroll through the event log contents.
PAPER PATH TEST	PRINT TEST PAGE SOURCE DESTINATION DUPLEX COPIES	<p>Generates a test page that is useful for testing the paper-handling features of the printer.</p> <p>PRINT TEST PAGE: Press ✓ (SELECT button) to start the paper-path test using the source (tray), destination (output bin), duplex, and number of copies settings that you set in the other items on the Paper Path Test menu. Set the other items before selecting PRINT TEST PAGE.</p> <p>SOURCE: Select the tray that uses the paper path that you want to test. You can select any tray that is installed. Select ALL TRAYS to test all paper paths. (Paper must be loaded in the selected trays.)</p> <p>DESTINATION: Select the output bin that uses the paper path that you want to test. You can select any output bin that is installed. Select ALL BINS to test all paper paths.</p> <p>DUPLEX: Determine whether the paper goes through the duplexer during the paper-path test. The menu item appears only if the printer includes a built-in duplexer .</p> <p>COPIES: Set how many sheets of paper are used from each tray during the paper-path test.</p>

Service menu

The Service menu is locked and requires a PIN for access. This menu is intended for use by authorized service personnel.



Specifications

HP LaserJet 2400 series physical specifications

Product dimensions

Product	Height	Depth	Width	Weight ¹
HP LaserJet 2410, 2420, 2420d, 2420n, 2420dn, and 2430n	260 mm (10.2 inches)	400 mm (15.7 inches)	425 mm (16.7 inches)	15.2 kg (33.5 lb)
HP LaserJet 2430t, 2430tn, and 2430dtn	400 mm (15.7 inches)	400 mm (15.7 inches)	425 mm (16.7 inches)	20.9 kg (46 lb)
optional 500-sheet feeder	140 mm (5.5 inches)	400 mm (15.7 inches)	425 mm (15.7 inches)	5.7 kg (12.5 lb)

¹Without print cartridge

Product dimensions, with all doors and trays fully opened

Printer model	Height	Depth	Width
HP LaserJet 2410, 2420, 2420d, 2420n, 2420dn, and 2430n	260 mm (10.2 inches)	730 mm (28.7 inches)	675 mm (26.6 inches)
HP LaserJet 2430t, 2430tn, and 2430dtn	400 mm (15.7 inches)	730 mm (28.7 inches)	675 mm (26.6 inches)

Electrical specifications

WARNING!

Power requirements are based on the country/region where the printer is sold. Do not convert operating voltages. This can damage the printer and void the product warranty.

Power requirements (HP LaserJet 2400 series)

Specification	110-volt models	230-volt models
Power requirements	110 to 127 volts ($\pm 10\%$) 50/60 Hz (± 2 Hz)	220 to 240 volts ($\pm 10\%$) 50/60 Hz (± 2 Hz)
Rated short-term current	10.0 Amps	5.0 Amps

Power consumption HP LaserJet 2400 series (average, in watts)¹

Product model	Printing ²	Ready	Sleep	Off
HP LaserJet 2410	625 W ³	11 W	8.5 W	0.4 W
HP LaserJet 2420	625 W ³	11 W	8.5 W	0.4 W
HP LaserJet 2420d	625 W ³	11 W	8.5 W	0.4 W
HP LaserJet 2420n	625 W ³	11 W	8.5 W	0.4 W
HP LaserJet 2420dn	625 W ³	11 W	8.5 W	0.4 W
HP LaserJet 2430n	625 W ³	11 W	8.5 W	0.4 W
HP LaserJet 2430t	625 W ³	11 W	8.5 W	0.4 W
HP LaserJet 2430tn	625 W ³	11 W	8.5 W	0.4 W
HP LaserJet 2430dtn	625 W ³	11 W	8.5 W	0.4 W

¹Values subject to change. See www.hp.com/support/lj2410, <http://www.hp.com/support/lj2420>, or <http://www.hp.com/support/lj2430> for current information.

²Power numbers are the highest values measured using all standard voltages.

³HP LaserJet 2410 speed is 25 ppm Letter size and 24 ppm A4 size. HP LaserJet 2420 speed is 30 ppm Letter size and 28 ppm A4 size. HP LaserJet 2430 speed is 35 ppm Letter size and 33 ppm A4 size.

⁴Default time from Ready mode to Sleep = 30 minutes.

⁵Recovery time from Sleep to start of printing = less than 8.5 seconds.

⁶Heat dissipation in Ready mode = 37.5 BTU/hour (HP LaserJet 2410), 37.5 BTU/hour (HP LaserJet 2420), and 37.5 BTU/hour (HP LaserJet 2430).

Acoustic emissions

Sound power and pressure level¹ (HP LaserJet 2400 series)

Sound power level	Declared per ISO 9296
Printing ² (HP LaserJet 2410)	L_{WAd} = 6.6 Bels (A) [66 dB(A)]
Printing ² (HP LaserJet 2420)	L_{WAd} = 6.7 Bels (A) [67 dB(A)]
Printing ² (HP LaserJet 2430)	L_{WAd} = 6.8 Bels (A) [68 dB(A)]
Ready (HP LaserJet 2410)	Essentially Inaudible
Ready (HP LaserJet 2420)	Essentially Inaudible
Ready (HP LaserJet 2430)	Essentially Inaudible
Sound pressure level	Declared per ISO 9296
Printing ² (HP LaserJet 2410)	L_{pAm} = 52 dB (A)
Printing ² (HP LaserJet 2420)	L_{pAm} = 53 dB (A)
Printing ² (HP LaserJet 2430)	L_{pAm} = 53 dB (A)
Ready (HP LaserJet 2410)	Essentially Inaudible
Ready (HP LaserJet 2420)	Essentially Inaudible
Ready (HP LaserJet 2430)	Essentially Inaudible

¹Values subject to change. See www.hp.com/support/lj2410, <http://www.hp.com/support/lj2420>, or <http://www.hp.com/support/lj2430> for current information.

²HP LaserJet 2410 speed is 25 ppm A4 size. HP LaserJet 2420 speed is 29 ppm A4 size. HP LaserJet 2430 speed is 34 ppm A4 size.

³Configuration tested (HP LaserJet 2410): Base printer, simplex printing with A4 paper size.

⁴Configuration tested (HP LaserJet 2420): Base printer, simplex printing with A4 paper size.

⁵Configuration tested (HP LaserJet 2430): Base printer, simplex printing with A4 paper size.

Operating environment

Environmental condition	Printing	Storage/standby
Temperature (printer and print cartridge)	15° to 32.5°C (59° to 89°F)	-20° to 40°C (-4° to 104°F)
Relative humidity	10% to 80%	10% to 90%

Paper specifications

For complete paper specifications for all HP LaserJet printers, see the *HP LaserJet printer family print media guide* (available at <http://www.hp.com/support/ljpaperguide>).

Category	Specifications
Acid content	5.5 pH to 8.0 pH
Caliper	0.094 to 0.18 mm (3.0 to 7.0 mils)
Curl in ream	Flat within 5 mm (0.02 inch)
Cut edge conditions	Cut with sharp blades with no visible fray.
Fusing compatibility	Must not scorch, melt, offset, or release hazardous emissions when heated to 200°C (392°F) for 0.1 second.
Grain	Long grain
Moisture content	4% to 6% by weight
Smoothness	100 to 250 Sheffield

Printing and paper storage environment

Ideally, the printing and paper storage environment should be at or near room temperature, and not too dry or too humid. Remember paper is hygroscopic; it absorbs and loses moisture rapidly.

Heat works with humidity to damage paper. Heat causes the moisture in paper to evaporate, while cold causes it to condense on the sheets. Heating systems and air conditioners remove most of the humidity from a room. As paper is opened and used, it loses moisture, causing streaks and smudging. Humid weather or water coolers can cause the humidity to increase in a room. As paper is opened and used it absorbs any excess moisture, causing light print and dropouts. Also, as paper loses and gains moisture it can distort. This can cause jams.

As a result, paper storage and handling are as important as the paper-making process itself. Paper storage environmental conditions directly affect the feed operation.

Care should be taken not to purchase more paper than can be easily used in a short time (about 3 months). Paper stored for long periods might experience heat and moisture extremes, which can cause damage. Planning is important to prevent damage to a large supply of paper.

Unopened paper in sealed reams can remain stable for several months before use. Opened packages of paper have more potential for environmental damage, especially if they are not wrapped with a moisture-proof barrier.

The paper storage environment should be properly maintained to ensure optimum printer performance. The required condition is 20° to 24°C (68° to 75°F), with a relative humidity of 45% to 55%. The following guidelines should be helpful when evaluating the paper's storage environment:

- Paper should be stored at or near room temperature.
- The air should not be too dry or too humid (due to the hygroscopic properties of paper).
- The best way to store an opened ream of paper is to rewrap it tightly in its moisture-proof wrapping. If the printer environment is subject to extremes, unwrap only the amount of paper to be used during the day's operation to prevent unwanted moisture changes.

Envelopes

Envelope construction is critical. Envelope fold lines can vary considerably, not only between manufacturers, but also within a box from the same manufacturer. Successful printing on envelopes depends upon the quality of the envelopes. When selecting envelopes, consider the following components:

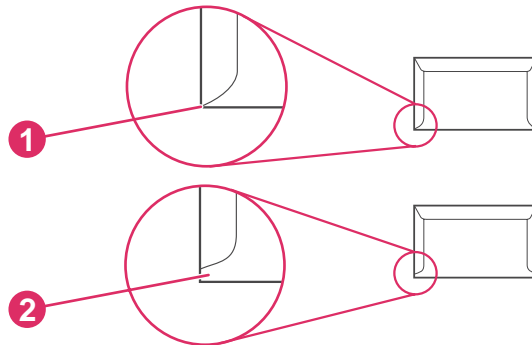
- **Weight:** The weight of the envelope paper should not exceed 105 g/m² (28 lb) or jamming might occur.
- **Construction:** Prior to printing, envelopes should lie flat with less than 6 mm (0.25 inch) curl, and should not contain air.
- **Condition:** Envelopes should not be wrinkled, nicked, or otherwise damaged.
- **Temperature:** You should use envelopes that are compatible with the heat and pressure of the printer.
- **Size:** You should use only envelopes within the following size ranges.
 - **Minimum:** 76 x 127 mm (3 x 5 inches)
 - **Maximum:** 216 x 356 mm (8.5 x 14 inches)

NOTE

Use only tray 1 to print envelopes. You might experience some jams when using any media with a length less than 178 mm (7 inches). This might be caused by paper that has been affected by environmental conditions. For optimum performance, make sure you are storing and handling the paper correctly (see [Printing and paper storage environment](#)). Choose envelopes in the printer driver (see [Using the printer driver](#)).

Envelopes with double side seams

Double side-seam construction has vertical seams at both ends of the envelope rather than diagonal seams. This style might be more likely to wrinkle. Be sure the seam extends all the way to the corner of the envelope as illustrated below.



- 1 Acceptable envelope construction
- 2 Unacceptable envelope construction

Envelopes with adhesive strips or flaps

Envelopes with a peel-off adhesive strip or with more than one flap that folds over to seal must use adhesives compatible with the heat and pressure in the printer. The extra flaps and strips might cause wrinkling, creasing, or even jams and might even damage the fuser.

Envelope margins

The following gives typical address margins for a commercial #10 or DL envelope.

Type of address	Top margin	Left margin
Return address	15 mm (0.6 inch)	15 mm (0.6 inch)
Delivery address	51 mm (2 inches)	89 mm (3.5 inches)

NOTE

For the best print quality, position margins no closer than 15 mm (0.6 inch) from the edges of the envelope. Avoid printing over the area where the envelope's seams meet.

Envelope storage

Proper storage of envelopes helps contribute to print quality. Envelopes should be stored flat. If air is trapped in an envelope, creating an air bubble, then the envelope might wrinkle during printing.

For more information, see [Printing on envelopes](#).

Labels

CAUTION

To avoid damaging the printer, use only labels recommended for laser printers. To prevent serious jams, always use tray 1 to print labels and always use the rear output bin. Never print on the same sheet of labels more than once or print on a partial sheet of labels.

Label construction

When selecting labels, consider the quality of each component:

- **Adhesives:** The adhesive material should be stable at 200°C (392°F), the printer's fusing temperature.
- **Arrangement:** Only use labels with no exposed backing between them. Labels can peel off sheets with spaces between the labels, causing serious jams.
- **Curl:** Prior to printing, labels must lie flat with no more than 13 mm (0.5 inch) of curl in any direction.
- **Condition:** Do not use labels with wrinkles, bubbles, or other indications of separation.

For more information, see [Printing on labels](#).

NOTE

Choose labels in the printer driver (see [Using the printer driver](#)).

Transparencies

Transparencies used in the printer must be able to withstand 200°C (392°F), the printer's fusing temperature.

CAUTION

To avoid damaging the printer, use only transparencies recommended for use in HP LaserJet printers, such as HP-brand transparencies. (For ordering information, see [Part numbers](#).)

For more information, see [Printing on transparencies](#).

NOTE

Choose transparencies in the printer driver (see [Using the printer driver](#)).

D

Printer memory and expansion

This section explains the memory features of the printer and provides steps for expansion.

- [Printer memory](#)
- [Installing CompactFlash cards](#)
- [Checking DIMM or CompactFlash installation](#)
- [Saving resources \(permanent resources\)](#)
- [Installing an EIO card](#)

Overview

The printer comes with one dual inline memory module (DIMM) already installed. One additional DIMM slot and two CompactFlash slots are available for upgrading the printer with the following items:

- More printer memory—DIMMs are available in 32, 48, 64, 128, and 256 MB.
- CompactFlash font cards—Unlike standard printer memory, CompactFlash cards can be used to permanently store downloaded items, such as fonts and forms, even when the printer is off. These cards can also be used to enable the printer to print non-Roman characters.
- Other DIMM- and CompactFlash-based printer languages and printer options.

For ordering information, see [Ordering parts, accessories, and supplies](#).

NOTE

Single inline memory modules (SIMMs) used in previous HP LaserJet printers are not compatible with the printer.

The printer also has one EIO slot for expanding the printer's networking capabilities. The EIO slot can be used to upgrade the printer with an additional network connection, such as a wireless print server, network card, or a connectivity card for serial or AppleTalk.

NOTE

Some HP LaserJet 2400 series printers come with a network device already installed. The EIO slot may be used to provide networking capabilities in addition to those already built into the printer.

To find out how much memory is installed in the printer, or to find out what is installed in the EIO slots, print a configuration page. (See [Configuration page](#)).

Printer memory

You might want to add more printer memory to the printer if you often print complex graphics, print PostScript (PS) documents, or use many downloaded fonts. Added memory also gives you more flexibility in supporting job-storage features, such as quick copying.

To install printer memory

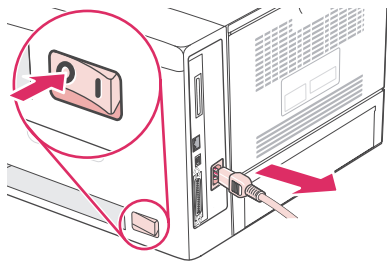
CAUTION

Static electricity can damage DIMMs. When handling DIMMs, either wear an antistatic wrist strap or frequently touch the surface of the DIMM antistatic package, then touch bare metal on the printer.

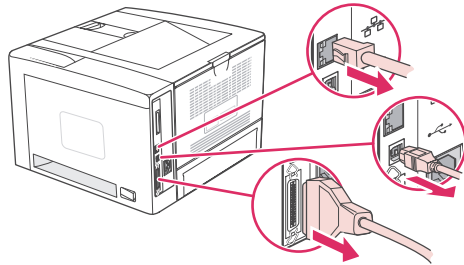
The HP LaserJet 2400 series printers come with one DIMM installed in slot 1. A second DIMM can be installed in slot 2. If desired, you can replace the DIMM installed in slot 1 with a higher memory DIMM.

If you have not already done so, print a configuration page to find out how much memory is installed in the printer before adding more memory. See [Configuration page](#).

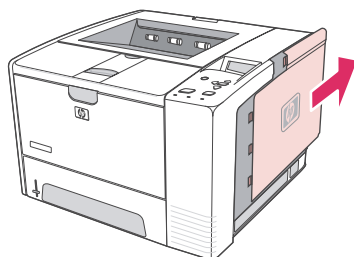
1. After the configuration page has printed, turn the printer off and disconnect the power cord.



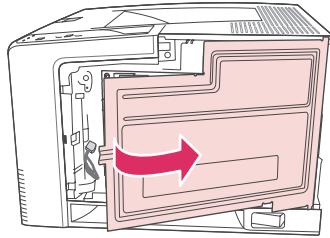
2. Disconnect all interface cables.



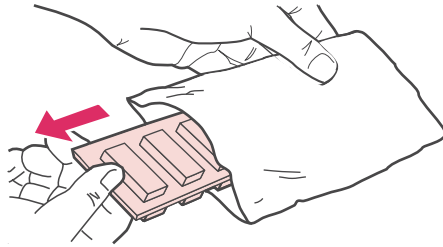
3. Remove the right side panel by sliding it towards the rear of the printer until the side slides free from the printer.



4. Open the access door by pulling on the metal tab.

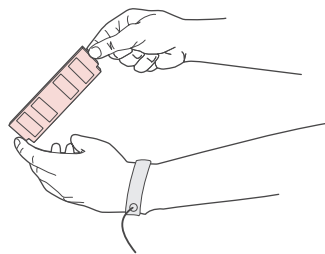


5. Remove the DIMM from the antistatic package.

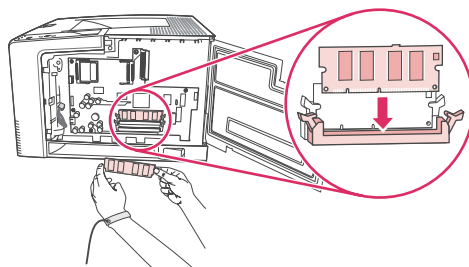


CAUTION

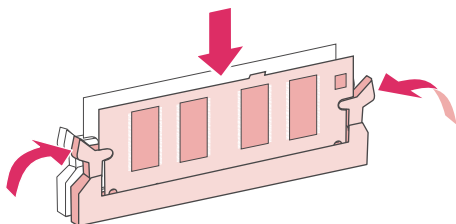
To reduce the possibility of damage caused by static electricity, always wear an electrostatic discharge (ESD) wrist strap or touch the surface of the antistatic package before handling DIMMs.



6. Hold the DIMM by the edges, and align the notches on the DIMM with the DIMM slot. (Check that the locks on each side of the DIMM slot are open.)

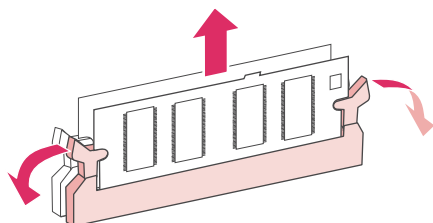


7. Press the DIMM straight into the slot, and press firmly. Make sure the locks on each side of the DIMM snap into place.

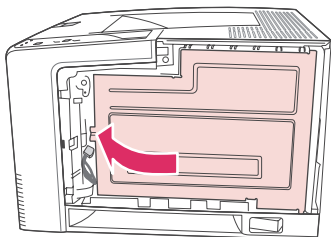


NOTE

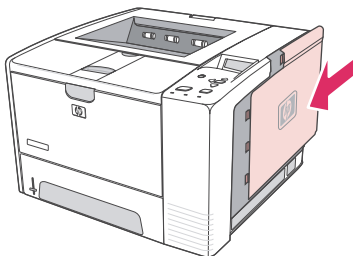
To remove a DIMM, first release the locks.



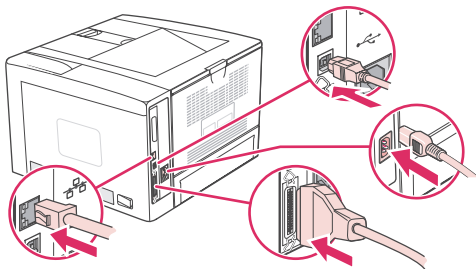
8. Close the access door, and press firmly until it snaps into place.



9. To replace the right side panel, line up the alignment arrows and slide the panel toward the front of the printer until it latches into place.



10. Reconnect the interface cable(s) and the power cord.



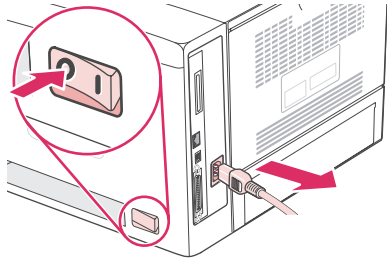
11. Turn the printer on.

Installing CompactFlash cards

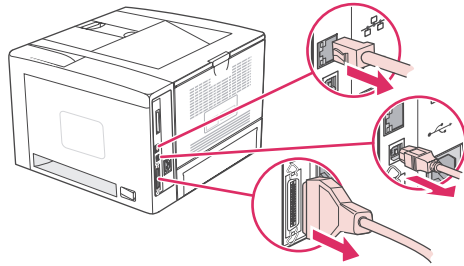
Up to two CompactFlash cards can be installed to add fonts to the printer.

To install a CompactFlash card

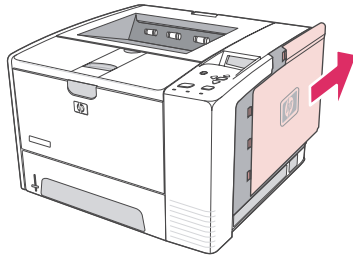
1. After the configuration page has printed, turn the printer off and disconnect the power cord.



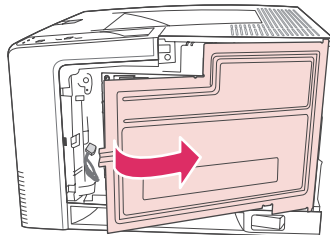
2. Disconnect all interface cables.



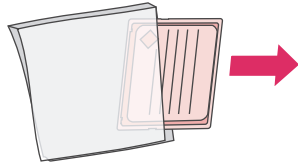
3. Remove the right side panel by sliding it towards the rear of the printer until the side slides free from the printer.



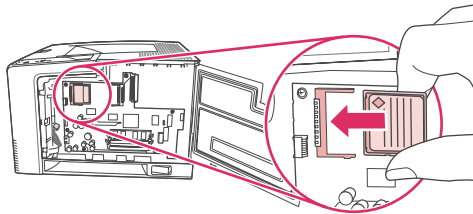
4. Open the access door by pulling on the metal tab.



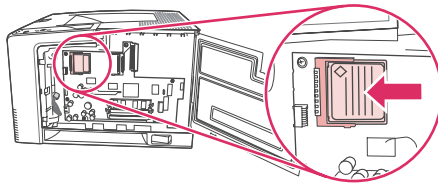
5. Remove the new CompactFlash card from its package.



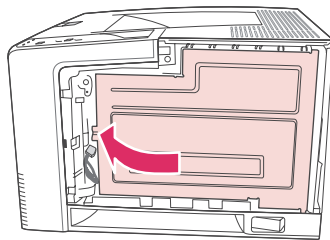
6. Hold the CompactFlash card by its edges and line up the grooves in the side of the card with the tabs in the CompactFlash card slot.



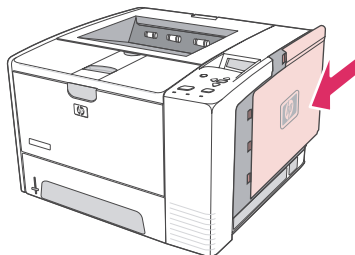
7. Slide the CompactFlash card into place.



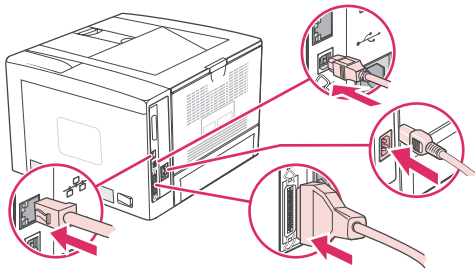
8. Close the access door, and press firmly until it snaps into place.



9. To replace the right side panel, line up the alignment arrows and slide the panel toward the front of the printer until it latches into place.



10. Reconnect the interface cable(s) and the power cord.



Use Device Storage Manager in HP Web Jetadmin to manage fonts. For more information, see the Help in HP Web Jetadmin.

Checking DIMM or CompactFlash installation

After installing the DIMM or CompactFlash card, make sure that the installation was successful.

To verify that DIMMs or CompactFlash cards are installed correctly

1. Turn the printer on. Check that the Ready light is illuminated after the printer has gone through the startup sequence. If an error message appears, a DIMM or CompactFlash card might have been incorrectly installed. See [Interpreting control-panel messages](#).
2. Print a configuration page (see [Configuration page](#)).
3. Check the memory section on the configuration page and compare it to the configuration page that was printed before the memory installation. If the amount of memory has not increased, the DIMM or CompactFlash card might not be installed correctly, or the DIMM or CompactFlash card might be defective. Repeat the installation procedure. If necessary, install a different DIMM or CompactFlash card.

NOTE

If you installed a printer language (personality), check the "Installed Personalities and Options" section on the configuration page. This area should list the new printer language.

Saving resources (permanent resources)

Utilities or jobs that you download to the printer sometimes include resources (for example, fonts, macros, or patterns). Resources that are internally marked as permanent remain in the printer memory until you turn the printer power off.

Use the following guidelines if you use the page description language (PDL) ability to mark resources as permanent. For technical details, see an appropriate PDL reference for PCL or PS.

- Mark resources as permanent only when it is absolutely necessary that they remain in memory while the printer power is turned on.
- Send permanent resources to the printer only at the beginning of a print job and not while the printer is printing.

NOTE

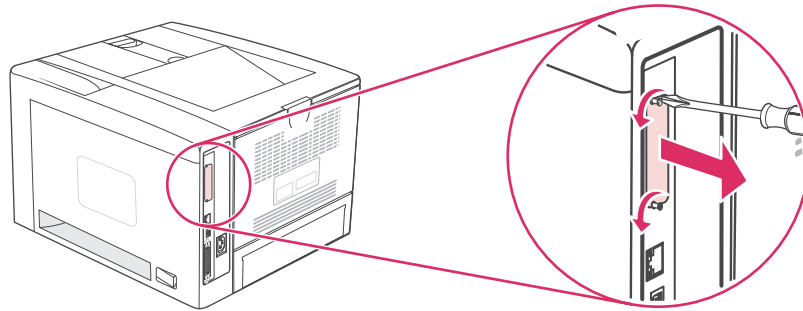
Over-using permanent resources or downloading them while the printer is printing might affect printer performance or the ability to print complex pages.

Installing an EIO card

Follow this procedure to install an EIO card.

To install an EIO card

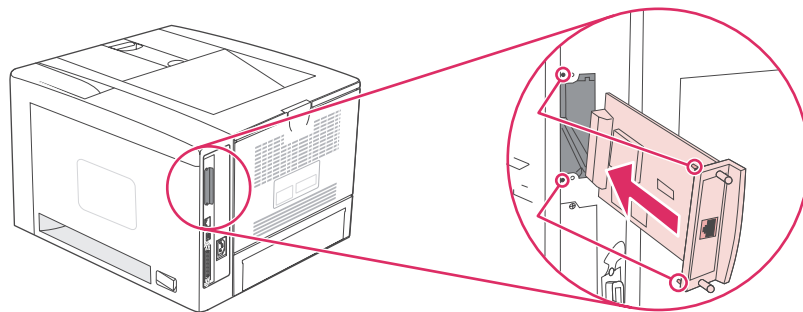
1. Turn the printer power off.
2. Remove the two screws and cover plate from the EIO slot on the back of the printer.



NOTE

Do not discard the screws or the cover plate. Save them for future use if you remove the EIO card.

3. Install the EIO card in the EIO slot and tighten the screws.



4. Turn the printer power on and print a configuration page to verify that the new EIO device is recognized. (See [Configuration page](#).)

NOTE

When you print a configuration page, an HP Jetdirect Configuration page that contains network configuration and status information also prints.

To remove an installed EIO card

1. Turn the printer power off.
2. Remove the two screws from the EIO card, and then remove the EIO card from the EIO slot.
3. Place the cover plate from the EIO slot onto the back of the printer. Insert and tighten the two screws.
4. Turn the printer power on.

E

Printer commands

Most programs do not require you to enter printer commands. See your computer and software documentation to find the method for entering printer commands, if needed.

PCL 6 and PCL 5e	PCL 6 and PCL 5e printer commands tell the printer which tasks to perform or which fonts to use. This section provides a quick reference for users who are already familiar with PCL 6 and PCL 5e command structure.
HP-GL/2	The printer has the ability to print vector graphics using the HP-GL/2 graphics language. Printing in the HP-GL/2 language requires that the printer leave PCL 5e language and enter HP-GL/2 mode, which can be done by sending the printer PCL 5e code. Some programs switch languages through their drivers.
PJL	HP's Printer Job Language (PJL) provides control above PCL 5e and other printer languages. The four major functions provided by PJL are: printer language switching, job separation, printer configuration, and status readback from the printer. PJL commands can be used to change printer default settings.

NOTE

The table at the end of this section contains commonly used PCL 5e commands. (See [Common PCL 6 and PCL 5 printer commands](#).) For a complete listing and explanation of how to use PCL 5e, HP-GL/2, and PJL commands, see the *HP PCL/PJL Reference Set*, which is available on CD-ROM (HP part number 5961-0975).

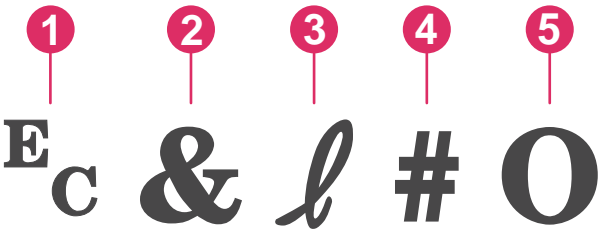
Understanding PCL 6 and PCL 5e printer command syntax

Before using printer commands, compare these characters:

Lowercase l:	l	Uppercase O:	O
Number one:	1	Number 0:	0

Many printer commands use the lowercase letter l (l) and the number one (1), or the uppercase letter O (O) and the number zero (0). These characters might not appear on your screen as shown here. You must use the exact character and case specified for PCL 6 or PCL 5e printer commands.

The figure below explains the elements of a typical printer command (in this instance, a command for page orientation).



- 1 Escape character (begins the escape sequence)
- 2 Parameterized character
- 3 Group character
- 4 Value field (contains both alpha and numeric characters)
- 5 Termination character (uppercase)

Combining escape sequences

Escape sequences can be combined into one escape sequence string. Follow these three important rules when combining code:

- 1. The first two characters after the E_c character are the parameterized and group characters. These characters must be the same in all of the commands that are to be combined.
- 2. When combining escape sequences, change the uppercase termination character in each individual escape sequence to lowercase.
- 3. The final character of the combined escape sequence must be uppercase.

The following is an example of an escape sequence string that would be sent to the printer to select legal paper, landscape orientation, and eight lines per inch:

E_c&l3AE_c&l1OE_c&l8D

The following escape sequence sends the same printer commands by combining them into a shorter sequence:

E_c&l3a1o8D

Using escape characters

Printer commands always begin with the escape character (E_c).

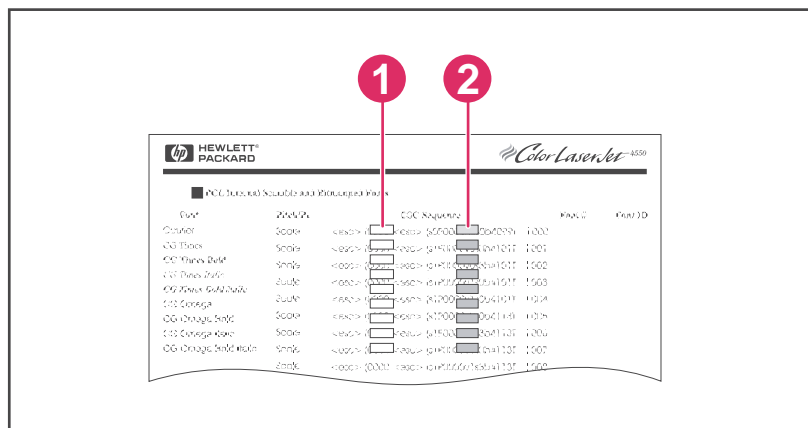
The following table shows how the escape character can be inserted in various MS-DOS programs.

DOS program	Entry	What appears
Lotus 1-2-3 and Symphony	Type \027	027
Microsoft Word for MS-DOS	Hold down Alt and type 027 on the numeric keypad	↔
WordPerfect for MS-DOS	Type <27>	<27>
MS-DOS Edit	Hold down Ctrl+P , and press Esc	↔
MS-DOS Edlin	Hold down Ctrl+V , and press [^[
dBase	?? CHR(27)+"command"	?? CHR(27)+" "

Selecting PCL 6 and PCL 5 fonts

The printer font list provides PCL 6 and PCL 5 printer commands for selecting fonts. See [PS or PCL font list](#) for information about how to print the list. A sample section is shown in the following illustration.

One variable box is available for specifying symbol sets and one for specifying point size. These variables must be filled in, or the printer will use defaults. For example, if you want a symbol set that contains line-draw characters, select the 10U (PC-8) or 12U (PC-850) symbol set. Other common symbol set codes are listed in the section [Common PCL 6 and PCL 5 printer commands](#).



- 1 Symbol set
- 2 Point size

NOTE

Fonts are either "fixed" or "proportional" in spacing. The printer contains both fixed fonts (Courier, Letter Gothic, and Lineprinter) and proportional fonts (CG Times, Arial, Times New Roman, and others). Fixed-spaced fonts are generally used in programs such as spreadsheets and databases, where it is important for columns to line up vertically. Proportional-spaced fonts are generally used in text and word-processing programs.

Common PCL 6 and PCL 5 printer commands

Job-control commands

Function	Command	Options (#)
Reset	E _c E	not available
Number of copies	E _c &I#X	1 to 999
2-sided/1-sided printing	E _c &I#S	0 = Simplex (1-sided) printing 1 = Duplex (2-sided) with long edge binding 2 = Duplex (2-sided) with short edge binding

Page-control commands

Function	Command	Options (#)
Paper source	E _c &I#H	0 = Prints or ejects current page 1 = Tray 2 2 = Manual feed, paper 3 = Manual feed, envelope 4 = Tray 1 5 = Tray 3 6 = Optional envelop feeder 7 = Auto select 8 = Tray 4 20 to 69 = external trays
Paper size	E _c &I#A	1 = Executive 2 = Letter 3 = Legal 25 = A5 26 = A4 45 = JIS B5 80 = Monarch envelope 81 = Commercial 10 envelope 90 = DL ISO envelope 91 = C5 ISO envelope 100 = B5 ISO envelope/B5 ISO 101 = Custom

Page-control commands (continued)

Function	Command	Options (#)
Paper type	E _c &n#	5WdBond = Bond 6WdPlain = Plain 6WdColor = Color 7WdLabels = Labels 9WdRecycled = Recycled 11WdLetterhead = Letterhead 10WdCardstock = Cardstock 11WdPrepunched = Prepunched 11WdPreprinted = Preprinted 13WdTransparency = Transparency #WdCustompapertype = Custom ¹
Orientation	E _c &l#O	0 = Portrait 1 = Landscape 2 = Reverse portrait 3 = Reverse landscape
Top margin	E _c &l#E	# = Number of lines
Text length (bottom margin)	E _c &l#F	# = Number of lines from top margin
Left margin	E _c &a#L	# = Column number
Right margin	E _c &a#M	# = Column number from left margin
Horizontal motion index	E _c &k#H	1/120-inch increments (compresses print horizontally)
Vertical motion index	E _c &l#C	1/48-inch increments (compresses print vertically)
Line spacing	E _c &l#D	# = Lines per inch (1, 2, 3, 4, 5, 6, 12, 16, 24, 48)
Perforation skip	E _c &l#L	0 = Disable (turn off) 1 = Enable (turn on)

¹ For custom paper, replace "Custompapertype" with the name of the paper, and replace the "#" with the number of characters in the name, plus 1.

Cursor Positioning

Function	Command	Options (#)
Vertical position (rows)	E _c &a#R	# = Row number

Cursor Positioning (continued)

Function	Command	Options (#)
Vertical position (dots)	E _c *p#Y	# = Dot number (300 dots = 1 inch)
Vertical position (decipoints)	E _c &a#V	# = Decipoint number (720 decipoints = 1 inch)
Horizontal position (columns)	E _c &a#C	# = Column number
Horizontal position (dots)	E _c *p#X	# = Dot number (300 dots = 1 inch)
Horizontal position (decipoints)	E _c &a#H	# = Decipoint number (720 decipoints = 1 inch)

Programming hints

Function	Command	Options (#)
End of line wrap	E _c &s#C	0 = Enable (turn off) 1 = Disable (turn on)
Display functions on	E _c Y	not available
Display functions off	E _c Z	not available

Language selection

Function	Command	Options (#)
Enter PCL 6 or PCL 5 mode	E _c %#A	0 = Use previous PCL 5 cursor position 1 = Use current HP-GL/2 pen position
Enter HP-GL/2 mode	E _c %#B	0 = Use previous HP-GL/2 pen position 1 = Use current PCL 5 cursor position

Font selection

Function	Command	Options (#)
Symbol sets	E _c (#	8U = HP Roman-8 Symbol Set 10U = IBM Layout (PC-8) (code page 437) Default Symbol Set 12U = IBM Layout for Europe (PC-850) (code page 850) 8M = Math-8 19U = Windows 3.1 Latin 1 9E = Windows 3.1 Latin 2 (commonly used in Eastern Europe) 5T = Windows 3.1 Latin 5 (commonly used in Turkey) 579L = Wingdings Font
Primary spacing	E _c (s#P	0 = Fixed 1 = Proportional
Primary pitch	E _c (s#H	# = Characters/inch
Set pitch mode ¹	E _c &k#S	0 = 10 4 = 12 (elite) 2 = 16.5 - 16.7 (compressed)
Primary height	E _c (s#V	# = Points
Primary style	E _c (s#S	0 = Upright (solid) 1 = Italic 4 = Condensed 5 = Condensed italic
Primary stroke wt.	E _c (s#B	0 = Medium (book or text) 1 = Semi bold 3 = Bold 4 = Extra bold
Typeface	E _c (s#T	Print a PCL 6 or PCL 5 font list to view the command for each internal font.

¹The preferred method is to use the primary pitch command.



Regulatory information

Introduction

This section contains the following regulatory information:

- [FCC regulations](#)
- [Environmental Product Stewardship program](#)
- [Declaration of conformity](#)
- [Laser safety statement](#)
- [Canadian DOC statement](#)
- [Korean EMI statement](#)
- [Finnish laser statement](#)

FCC regulations

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If this equipment is not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation; the presence of interference can be determined by turning the equipment off and on. If this equipment does cause harmful interference to radio or television communications, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase distance between equipment and receiver.
- Connect equipment to an outlet on a circuit different from that to which the receiver is located.
- Consult your dealer or an experienced radio/television technician.

NOTE

Any changes or modifications to the printer that are not expressly approved by HP could void the user's authority to operate this equipment.

Use of a shielded interface cable is required to comply with the Class B limits of Part 15 of FCC rules.

Environmental Product Stewardship program

Protecting the environment

Hewlett-Packard Company is committed to providing quality products in an environmentally sound manner. This product has been designed with several attributes to minimize impacts on our environment.

Ozone production

This product generates no appreciable ozone gas (O₃).

Energy consumption

Power usage drops significantly while in PowerSave mode, which saves natural resources and saves money without affecting the high performance of this product. This product qualifies for ENERGY STAR® (Printers, Version 3.0), which is a voluntary program to encourage the development of energy-efficient office products.



ENERGY STAR® is a U.S. registered service mark owned by the U.S. government. As an ENERGY STAR partner, Hewlett-Packard Company has determined that this product meets ENERGY STAR Guidelines for energy efficiency. For more information, see <http://www.energystar.gov>.

Toner consumption

EconoMode uses significantly less toner, which might extend the life of the print cartridge.

Paper use

This product's automatic duplex feature (two-sided printing) and n-up printing (multiple pages printed on one page) capabilities can reduce media usage and the resulting demands on natural resources. (The automatic duplex feature is available only for models that include a built-in duplexer. Manual duplexing is available for all models. See [Printing on both sides \(duplexing\)](#).)

Plastics

Plastic parts over 25 grams are marked according to international standards that enhance the ability to identify plastics for recycling purposes at the end of the product's life.

HP LaserJet printing supplies

In many countries/regions, this product's printing supplies (for example, print cartridge and fuser) can be returned to HP through the HP Printing Supplies Environmental Program. An easy-to-use and free take back program is available in more than 30 countries/regions. Multilingual program information and instructions are included in every new HP LaserJet print cartridge and supplies package.

HP Printing Supplies Returns and Recycling Program Information

Since 1992, HP has offered HP LaserJet supplies return and recycling free of charge in 86% of the world market where HP LaserJet supplies are sold. Postage-paid and pre-addressed labels are included within the instruction guide in most HP LaserJet print cartridge boxes. Labels and bulk boxes are also available through the Web site at <http://www.hp.com/recycle>. More than 10 million HP LaserJet print cartridges were recycled globally in 2002 through the HP Planet Partners supplies recycling program. This record number represents 26 million pounds of print cartridge materials that were diverted from landfills. Worldwide, HP recycled an average of 80% of the print cartridge by weight, consisting primarily of plastic and metals. Recycled plastics and metals are used to make new products, such as HP products, plastic trays, and spools. The remaining materials are disposed of in an environmentally responsible manner.

- **U.S. returns** For a more environmentally responsible return of used cartridges and supplies, HP encourages the use of bulk returns. Simply bundle two or more cartridges together and use the single, prepaid, preaddressed UPS label that is supplied in the package. For more information in the U.S., call 1-800-340-2445 or visit the HP LaserJet Supplies Web site at <http://www.hp.com/recycle>.
- **Non-U.S. returns** Non-U.S. customers should call the local HP Sales and Service Office or visit the <http://www.hp.com/recycle> Web site for further information regarding availability of the HP Supplies Returns and Recycling Program.

Paper

This product is capable of using recycled papers when the paper meets the guidelines outlined in the *HP LaserJet Printer Family Print Media Guide*. Go to <http://www.hp.com/support/ljpaperguide> to download this guide in .PDF format. This product is suitable for the use of recycled media according to EN12281:2002.

Material restrictions

This HP product does not contain added mercury.

This HP product may initially contain lead in solder that might require special handling at end-of-life. This product will eventually switch to lead-free construction in compliance with the European Waste from Electrical and Electronic Equipment (WEEE) law.

This HP product contains a battery that might require special handling at end-of-life.

Type	Lithium Carbon Monofluoride (BR1632), 3 Volt, button-style battery, 1.5 grams
Materials	Mercury-free, Cadmium-free
Location	On printed circuit board
User removable	No

For recycling information, you can contact <http://www.hp.com/recycle> or contact your local authorities or the Electronics Industry Alliance: <http://www.eiae.org>.

Material safety data sheet

Material Safety Data Sheets (MSDS) for supplies that contain chemical substances (for example, toner) can be obtained by contacting the HP Web site at <http://www.hp.com/go/msds> or <http://www.hp.com/hpinfo/community/environment/productinfo/safety>.

For more information

To obtain information about the following environmental topics, visit <http://www.hp.com/go/environment> or <http://www.hp.com/hpinfo/community/environment/productinfo/safety>.

- Product environmental profile sheet for this and many related HP products.
- HP's commitment to the environment
- HP's environmental management system
- HP's end-of-life product return and recycling program
- Material Safety Data Sheets (MSDS)

Declaration of conformity

Declaration of Conformity

according to ISO/IEC Guide 22 and EN 45014

Manufacturer's Name: Hewlett-Packard Company
Manufacturer's Address: 11311 Chinden Boulevard
Boise, Idaho 83714-1021, USA

declares, that the product

Product Name: HP LaserJet 2410/2420/2430 printer
Regulatory Model Number³⁾: BOISB-0406-00
Including optional accessory 500-Sheet Input Tray (Q5963A)
Product Options: ALL

conforms to the following Product Specifications:

Safety: IEC 60950:1999 / EN60950: 2000
IEC 60825-1:1993 +A1 +A2 / EN 60825-1:1994 +A11 +A2 (Class 1 Laser/LED Product)
GB4943-2001

EMC: CISPR 22:1997 / EN 55022:1998 Class B¹⁾
EN 61000-3-2:1995 + A14
EN 61000-3-3:1995 + A1
EN 55024:1998
FCC Title 47 CFR, Part 15 Class B²⁾ / ICES-003, Issue 4
GB9254-1998, GB17625.1-1998

Supplementary Information:

The product herewith complies with the requirements of the EMC Directive 89/336/EEC and the Low Voltage Directive 73/23/EEC, and carries the CE-Marking accordingly.

1) The product was tested in a typical configuration with Hewlett-Packard Personal Computer Systems.

*) The product includes LAN (Local Area Network) options. When the interface cable is attached to LAN connectors, the product meets the requirements of EN55022 Class A in which case the following applies: "Warning – This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures."

2) This Device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

3) For regulatory purposes, this product is assigned a Regulatory model number. This number should not be confused with the marketing name or the product number(s).

Boise, Idaho , USA

April 2, 2004

For regulatory topics only:

Australia Contact: Product Regulations Manager, Hewlett-Packard Australia Ltd., 31-41 Joseph Street Blackburn, Victoria 3130, Australia
European Contact: Your Local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department HQ-TRE / Standards Europe, Herrenberger Strasse 140 , D-71034, Böblingen (FAX: +49-7031-14-3143)
USA Contact: Product Regulations Manager, Hewlett-Packard Company, PO Box 15, Mail Stop 160 Boise, ID 83707-0015, (Phone: 208-396-6000)

Country-/region-specific safety statements

Laser safety statement

The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration has implemented regulations for laser products manufactured since August 1, 1976. Compliance is mandatory for products marketed in the United States. The printer is certified as a "Class 1" laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968.

Since radiation emitted inside the printer is completely confined within protective housings and external covers, the laser beam cannot escape during any phase of normal user operation.

WARNING!

Using controls, making adjustments, or performing procedures other than those specified in this user guide may result in exposure to hazardous radiation.

Canadian DOC statement

Complies with Canadian EMC Class B requirements.

«Conforme à la classe B des normes canadiennes de compatibilité électromagnétiques (CEM).»

Japanese VCCI statement

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取り扱い説明書に従って正しい取り扱いをして下さい。

Korean EMI statement

사용자 안내문 (B 급 기기)

이 기기는 비업무용으로 전자파장해검정을 받은 기기로서, 주거지역에서는 물론 모든 지역에서 사용할 수 있습니다.

Finnish laser statement

LASERTURVALLISUUS

LUOKAN 1 LASERLAITE

KLASS 1 LASER APPARAT

HP LaserJet 2410, 2420, and 2430 series -laserkirjoitin on käyttäjän kannalta turvallinen luokan 1 laserlaite. Normaaliassa käytössä kirjoittimen suojakotelointi estää lasersäteiden pääsyn laitteen ulkopuolelle.

Laitteen turvallisuusluokka on määritetty standardin EN60825-1 (1994) mukaisesti.

VAROITUS!

Laitteen käyttäminen muulla kuin käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

WARNING!

Om apparaten används på annat sätt än i bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

HUOLTO

HP LaserJet 2410, 2420, and 2430 series -kirjoittimen sisällä ei ole käyttäjän huollettavissa olevia kohteita. Laitteen saa avata ja huoltaa ainoastaan sen huoltamiseen koulutettu henkilö. Tällaiseksi huoltotoimenpiteeksi ei katsota väriainekasetin vaihtamista, paperiradan puhdistusta tai muita käyttäjän käsikirjassa lueteltuja, käyttäjän tehtäväksi tarkoitettuja ylläpitotoimia, jotka voidaan suorittaa ilman erikoistyökaluja.

VARO!

Mikäli kirjoittimen suojakotelo avataan, olet alttiina näkymättömälle lasersäteilylle laitteen ollessa toiminnassa. Älä katso säteeseen.

WARNING!

Om laserprinterns skyddshölje öppnas då apparaten är i funktion, utsättas användaren för osynlig laserstrålning. Betrakta ej strålen.

Tiedot laitteessa käytettävän laserdiodin säteilyominaisuuksista:

Aallonpituus 770-800 nm

Teho 5 mW

Luokan 3B laser



Service and support

Hewlett-Packard limited warranty statement

HP PRODUCT

HP LaserJet 2410, 2420, and 2430 series

DURATION OF LIMITED WARRANTY

1 year, Return to Authorized Service Center

HP warrants to you, the end-user customer, that HP hardware and accessories will be free from defects in materials and workmanship after the date of purchase, for the period specified above. If HP receives notice of such defects during the warranty period, HP will, at its option, either repair or replace products which prove to be defective. Replacement products may be either new or equivalent in performance to new.

HP warrants to you that HP software will not fail to execute its programming instructions after the date of purchase, for the period specified above, due to defects in material and workmanship when properly installed and used. If HP receives notice of such defects during the warranty period, HP will replace software which does not execute its programming instructions due to such defects.

HP does not warrant that the operation of HP products will be uninterrupted or error free. If HP is unable, within a reasonable time, to repair or replace any product to a condition as warranted, you will be entitled to a refund of the purchase price upon prompt return of the product.

HP products may contain remanufactured parts equivalent to new in performance or may have been subject to incidental use.

Warranty does not apply to defects resulting from (a) improper or inadequate maintenance or calibration, (b) software, interfacing, parts or supplies not supplied by HP, (c) unauthorized modification or misuse, (d) operation outside of the published environmental specifications for the product, or (e) improper site preparation or maintenance.

TO THE EXTENT ALLOWED BY LOCAL LAW, THE ABOVE WARRANTIES ARE EXCLUSIVE AND NO OTHER WARRANTY OR CONDITION, WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED AND HP SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, AND FITNESS FOR A PARTICULAR PURPOSE. Some countries/regions, states or provinces do not allow limitations on the duration of an implied warranty, so the above limitation or exclusion might not apply to you. This warranty gives you specific legal rights and you might also have other rights that vary from country/region to country/region, state to state, or province to province. HP's limited warranty is valid in any country/region or locality where HP has a support presence for this product and where HP has marketed this product. The level of warranty service you receive may vary according to local standards. HP will not alter form, fit or function of the product to make it operate in a country/region for which it was never intended to function for legal or regulatory reasons.

TO THE EXTENT ALLOWED BY LOCAL LAW, THE REMEDIES IN THIS WARRANTY STATEMENT ARE YOUR SOLE AND EXCLUSIVE REMEDIES. EXCEPT AS INDICATED ABOVE, IN NO EVENT WILL HP OR ITS SUPPLIERS BE LIABLE FOR LOSS OF DATA OR FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFIT OR DATA), OR OTHER DAMAGE, WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE. Some countries/regions, states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

THE WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT OR MODIFY AND ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

Print Cartridge Limited Warranty Statement

This HP Print Cartridge is warranted to be free from defects in materials and workmanship.

This warranty does not apply to print cartridges that (a) have been refilled, refurbished, remanufactured or tampered with in any way, (b) experience problems resulting from misuse, improper storage, or operation outside of the published environmental specifications for the printer product or (c) exhibit wear from ordinary use.

To obtain warranty service, please return the product to place of purchase (with a written description of the problem and print samples) or contact HP customer support. At HP's option, HP will either replace products that prove to be defective or refund your purchase price.

TO THE EXTENT ALLOWED BY LOCAL LAW, THE ABOVE WARRANTY IS EXCLUSIVE AND NO OTHER WARRANTY OR CONDITION, WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED AND HP SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, AND FITNESS FOR A PARTICULAR PURPOSE.

TO THE EXTENT ALLOWED BY LOCAL LAW, IN NO EVENT WILL HP OR ITS SUPPLIERS BE LIABLE FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFIT OR DATA), OR OTHER DAMAGE, WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE.

THE WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT OR MODIFY AND ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

Availability of support and service

Around the world, HP provides a variety of service and support options for purchase. Availability of these programs will vary depending upon your location.

HP maintenance agreements

HP has several types of maintenance agreements that meet a wide range of support needs. Maintenance agreements are not part of the standard warranty. Support services vary by location. Contact HP Customer Care to determine the services available to you and for more information about maintenance agreements. In general, the printer will have the following maintenance agreements:

Onsite service agreements

To provide you with the level of support best suited to your needs, HP has on-site service agreements with two response times:

Priority Onsite Service

This agreement provides 4-hour service response to your site for calls made during normal HP business hours.

Next-Day Onsite Service

This agreement provides support by the next working day following a service request. Extended coverage hours and extended travel beyond HP's designated service zones are available on most on-site agreements (for additional charges).

HP Express Exchange (U.S. and Canada only)

This service, available for an additional fee, is an alternative to the standard warranty and entails returning your printer for repair. HP Express Exchange allows you to receive a refurbished replacement unit and then return your defective printer. The fast turnaround from HP Express Exchange minimizes downtime over traditional service programs that require you to ship the defective printer to the manufacturer and then wait for the printer to be repaired and returned.

If you choose to use this service, follow the steps listed below. If you have HP on-site support service, you should work directly with the local HP Customer Care center instead of following the steps outlined here.

NOTE

To identify potential support options for this printer, go to <http://www.hpexpress-services.com> and type the printer model number. In North America, additional options might be available through HP Customer Care. Call 1-800-HPINVENT [1-800-474-6836 (U.S.)] or 1-800-268-1221 (Canada).

To use HP Express Exchange

1. Call the HP Customer Care Center for the U.S. or Canada. A technician troubleshoots the situation and determines whether the printer has actually failed. If so, the technician refers the customer to the HP Service Center.
2. A representative from the service center requests product and customer information. In some cases, collateral might also be requested.
3. Before agreeing to use this service, check with the representative for information about returning your defective printer.
4. HP ships a refurbished replacement unit to arrive the next day. (Geographic distance might prevent next-day shipping.)

Exchanged units carry the remainder of the original unit's warranty or 90 days, whichever is greater.

Repacking the printer

If HP Customer Care determines that your printer needs to be returned to HP for repair, follow the steps below to repack the printer before shipping it.

CAUTION

Shipping damage as a result of inadequate packing is the customer's responsibility.

To repack the printer

1. Remove and retain any DIMMs or CompactFlash cards that you have purchased and installed in the printer. Do not remove the DIMM that came with the printer.

CAUTION

Static electricity can damage DIMMs. When handling DIMMs, either wear an antistatic wrist strap, or frequently touch the surface of the DIMM antistatic package and then touch bare metal on the printer. To remove the DIMMs, see [Printer memory](#).

2. Remove and retain the print cartridge.

CAUTION

It is **extremely important** to remove the print cartridge before shipping the printer. A print cartridge that is left in the printer during shipping will leak and entirely cover the printer engine and other parts with toner.

To prevent damage to the print cartridge, avoid touching the roller on it, and store the print cartridge in its original packing material or so that it is not exposed to light.

3. Remove and retain the power cable, interface cable, and optional accessories.
4. If possible, include print samples and 50 to 100 sheets of paper or other print media that did not print correctly.
5. Include a completed copy of the [Service information form](#).
6. In the U.S., call HP Customer Care to request new packing material. In other areas, use the original packing material, if possible. Hewlett-Packard recommends insuring the equipment for shipment.

Service information form

WHO IS RETURNING THE EQUIPMENT?		Date:
Person to contact:		Phone:
Alternate contact:		Phone:
Return shipping address:	Special shipping instructions:	
WHAT ARE YOU SENDING?		
Model name:	Model number:	Serial number:
Please attach any relevant printouts. Do NOT ship accessories (manuals, cleaning supplies, etc.) that are not required to complete the repair.		
HAVE YOU REMOVED THE PRINT CARTRIDGE?		
You must remove the print cartridge before shipping the printer, unless a mechanical problem prevents you from doing so.		
<input type="checkbox"/> Yes.	<input type="checkbox"/> No, I cannot remove it.	
WHAT NEEDS TO BE DONE? (Attach a separate sheet if necessary.)		
1. Describe the conditions of the failure. (What was the failure? What were you doing when the failure occurred? What software were you running? Is the failure repeatable?)		
2. If the failure is intermittent, how much time elapses between failures?		
3. If the unit connected to any of the following, give the manufacturer and model number.		
Personal computer:	Modem:	Network:
4. Additional comments:		
HOW WILL YOU PAY FOR THE REPAIR?		
<input type="checkbox"/> Under warranty	Purchase/received date:	
(Attach proof of purchase or receiving document with original received date.)		
<input type="checkbox"/> Maintenance contract number:		
<input type="checkbox"/> Purchase order number:		
Except for contract and warranty service, a purchase order number and/or authorized signature must accompany any request for service. If standard repair prices do not apply, a minimum purchase order is required. Standard repair prices can be obtained by contacting an HP-authorized repair center.		
Authorized signature:		Phone:
Billing address:	Special billing instructions:	

Index

Symbols/Numerics

- 1,500-sheet tray
 - troubleshooting 102
- 500-sheet tray
 - troubleshooting 102

A

- A4 paper settings 166, 167
- accessibility 7
- accessories
 - ordering 150
 - part numbers 152
 - troubleshooting 102
- Accessory installation guides 2
- address, displaying printer 13, 172
- address, printer
 - Macintosh, troubleshooting 140, 143
- adhesive labels. *See* labels
- agreements, maintenance 222
- Alerts tab, HP Toolbox 76
- alerts, e-mail 81
- anticounterfeit website 89
- Apple Macintosh. *See* Macintosh
- AppleTalk setting 176
- Attention light 12
- auto continue setting 18, 174

B

- background printing, troubleshooting 141
- batch installation, driver 80
- battery specifications 214
- bidirectional communication settings 176
- binding edge settings 55, 166
- bins
 - paper curl, troubleshooting 104
 - paper jams, clearing 113
- bins, output
 - locating 8
 - paper path test 178
 - selecting 47
 - settings 166
- blank pages
 - suppressing 168
- blank pages, troubleshooting 105
- blinking lights 11
- blurred print, troubleshooting 136

- both sides, printing on
 - binding edge settings 166
 - layout options 55
 - loading paper 54
 - manually 56
 - paper sizes supported 54
 - troubleshooting 105
 - usage page 160
 - using duplexer 55
- browser requirements
 - embedded Web server 70
 - HP Toolbox 74
- browsers supported
 - HP Web Jetadmin 73
- buttons, control panel 11

C

- cables
 - troubleshooting 98
- cables,
 - part numbers 153
- canceling print jobs 57
- capacities, trays 4, 34
- card stock
 - fuser modes 170
 - printing on 51
- carriage returns, settings 168
- cartridges
 - cleaning near 92
 - density settings 171
 - EconoMode 171
 - Economode 63
 - features 6
 - life expectancy 90
 - low 19, 174
 - low toner message 90
 - non-HP 89
 - ordering iii
 - out 20, 175
 - out of toner message 91
 - paper jams, clearing from 110
 - recycling 213
 - status information 89
 - status, viewing with embedded Web server 71
 - status, viewing with HP Toolbox 75

- storing 89
- supplies status page 87
- supply level, checking 90
- characters
 - misformed 133
- cleaning
 - fuser 93
 - paper path 92
- cleaning page 171
- cleaning page, printing 93
- clearable warnings
 - setting display time 18
- clearable warnings setting 18, 174
- clock, setting 82
- commands
 - escape sequences 204, 205
 - font selection 205, 209
 - PCL 206
 - syntax 204
 - types of 203
- communications settings 176
- CompactFlash cards
 - accessing 8
 - installing 195
 - types available 190
 - verifying installation 198
- configuration page
 - troubleshooting 97
- configuration page, printing 85
- configuration, driver 79
- configurations, printer 3
- Configure Device menu 165
- consumables
 - recycling 213
- contracts, maintenance 222
- control panel
 - buttons 11
 - clearable warning settings 18, 174
 - Configure Device menu 165
 - date/time settings 172
 - Diagnostics menu 178
 - error messages 116
 - help 12
 - I/O menu 175
 - Information menu 160
 - language, selecting 21, 96, 175
 - lights 11
 - locating 8, 10
 - menu map, printing 12, 85
 - online Help 116
 - Paper Handling menu 161
 - print cartridge supply level, checking 90
 - Print Quality menu 168
 - Printing menu 165
 - Resets menu 176
 - Retrieve Job menu 158

- settings 13
- System Setup menu 172
- troubleshooting 96
- copies, default number of 165
- counterfeit supplies 89
- counts, page 86
- Courier font settings 167
- covers
 - first page, different paper 65
- creased paper, troubleshooting 135
- crooked pages 134
- curled paper, troubleshooting 134
- custom-size paper
 - printing on 51
 - settings 62, 164
 - tray settings 166
 - tray specifications 34
- customer support
 - embedded Web server links 72
 - HP Express Exchange 223
 - HP Instant Support Professional Edition (ISPE) iii
 - Macintosh iv
 - maintenance agreements 222
 - online iii
 - repacking printer 224
 - service dealers iv
 - service information form 225
 - telephone iii
- customization utility 80

D

- darkness, setting 171
- Data light 12
- data transmission settings 176
- date settings 172
- date, setting 82
- declaration of conformity 216
- default settings
 - drivers, changing 58
- default settings, restoring 176
- density settings 171
- density, troubleshooting 130
- Desktop Printer Utility, troubleshooting 140
- Device Settings window, HP Toolbox 76
- Diagnostics menu 178
- DIMMs
 - accessing 8
 - installing 191
 - types available 190
 - verifying installation 198
- disk
 - EIO slots 190
 - file directory, printing 160
 - font list, printing 87
 - installing 200
 - removing 201
- DLC/LLC setting 176

- documentation 2
- Documentation tab, HP Toolbox 76
- dots, troubleshooting 130, 136
- double-sided printing
 - binding edge settings 166
 - layout options 55
 - loading paper 54
 - manual 56
 - paper sizes supported 54
 - troubleshooting 105
 - usage page 160
 - using duplexer 55
- downloading software iii
- dpi, settings 170
- draft printing 63
- draft quality printing 170, 171
- drivers
 - configuring 79
 - default settings, changing 58
 - downloading iii
 - help 25
 - Linux 24
 - Macintosh iv
 - Macintosh, troubleshooting 142
 - operating systems supported 24
 - OS/2 24
 - selecting 25
 - settings 13, 25, 58
- dropouts, troubleshooting 131
- drum life out message 91
- duplex printing
 - paper path test 178
- duplex printing accessory
 - binding options 55
 - models including 3
 - paper orientation 54
 - paper sizes supported 54
 - paper specifications 35
 - settings 166
 - usage page 160
 - using 55
- duplexer
 - paper jams, clearing 114
- duplexing
 - troubleshooting 105

E

- e-mail alerts 76, 81
- Economode 63
- EconoMode setting 171
- edge-to-edge mode 166
- EIO cards
 - installing 200
 - part numbers 153
 - removing 201
 - settings 175
 - slots 190

- Elo cards
 - part numbers 153
- electrical specifications 182
- embedded Web server
 - e-mail alerts 81
 - features 70
 - Information tab 71
 - Networking tab 72
 - opening 70
 - Other Links tab 72
 - print cartridge supply level, checking 90
 - Settings tab 71
 - system requirements 70
- energy consumption 213
- energy specifications 182
- ENERGY STAR
 - compliance 213
- energy use 6
- enlarging documents 64
- envelopes
 - default size, setting 166
 - margins 48, 187
 - printing from tray 1 48
 - specifications 186
 - storing 187
 - wrinkled, troubleshooting 135
- environment, specifications 184
- environmental
 - features 213
- EPS files, troubleshooting 141, 144
- error messages
 - event log 178
 - event log, printing 86
 - settings 18, 174
 - Windows 139
- error messages, troubleshooting 116
- escape characters 204
- Ethernet cards, part numbers 153
- event log 86, 178
- Explorer, versions supported
 - embedded Web server 70
 - HP Toolbox 74
 - HP Web Jetadmin 73
- Express Exchange, HP 223
- Extended Service iv
- extended warranty 222

F

- factory defaults, restoring 176
- FastRes 4, 63
- FastRes resolution 170
- FCC statements 212
- features
 - printer 3
- file directory, printing 160
- flashing lights 11
- Flip Pages Up binding option 55

- fonts
 - Courier 167
 - EPS files, troubleshooting 141, 144
 - included 5
 - list, printing 160
 - lists, printing 87
 - Macintosh, troubleshooting 141
 - PCL commands 205, 209
 - permanent resources 199
 - settings 168
 - troubleshooting 146
- fuser
 - modes 170
- fuser modes 41
- fuser, cleaning 93

G

- General Protection FaultException OE 139
- Getting started guide 2
- gray background, troubleshooting 131
- guides, documentation 2

H

- heavy paper
 - fuser modes 170
 - printing on 51
- held jobs
 - memory requirements 66
 - private 67
 - proof-and-hold 66
 - Retrieve Job control panel menu 158
 - settings 172
- Help 116
- help
 - control panel 12
 - drivers 25
- HP Express Exchange 223
- HP Instant Support Professional Edition (ISPE) iii
- HP Jetdirect print server
 - configuration page, printing 85
 - installing 200
 - models including 3
 - part numbers 153
 - removing 201
 - settings 176
- HP LaserJet Utility, Macintosh 27
- HP media, ordering 153
- HP OpenVMS drivers 24
- HP Printing Supplies Returns and Recycling Program 213
- HP SupportPack 222
- HP Toolbox
 - Alerts tab 76
 - Device Settings window 76
 - Documentation tab 76
 - features 74
 - links 77

- opening 75
- print cartridge supply level, checking 90
- Status tab 75
- Troubleshooting tab 75
- uninstalling 78
- HP Web Jetadmin
 - browsers supported 73
 - downloading 73
 - driver configuration 79
 - e-mail alerts 81
- HP-Authorized Dealers iv
- HP-GL/2 commands 203
- humidity requirements 184

I

- I/O menu 175
- IBM OS/2 drivers 24
- Illegal Operation errors 139
- image reptition, troubleshooting 137
- Information menu 160
- information pages, printing 85
- Information tab, embedded Web server 71
- input trays
 - configuring 14
- Install notes 76
- installing
 - CompactFlash cards 195
 - drivers using customization utility 80
 - EIO cards 200
 - Macintosh software 31
 - memory (DIMMs) 191
 - network software, Macintosh 30
 - network software, Windows 29
 - Windows printing system 28
 - Windows software using New Hardware Found wizard 32
- interface cables, troubleshooting 98
- Internet Explorer, versions supported
 - embedded Web server 70
 - HP Toolbox 74
 - HP Web Jetadmin 73
- IP address
 - Macintosh, troubleshooting 140, 143
- IP address, displaying 13, 172
- ISPE (HP Instant Support Professional Edition) iii

J

- jams
 - causes of 110
 - duplexer, clearing 114
 - first sheet, troubleshooting 104
 - locating 110
 - output areas, clearing 113
 - print-cartridge area, clearing 110
 - recovery setting 20, 175
 - trays, clearing 112

- Jet direct print server
 - configuration page, printing 85
- Jetadmin
 - browsers supported 73
 - downloading 73
 - driver configuration 79
 - e-mail alerts 81
- Jetdirect print server
 - installing 200
 - models including 3
 - part numbers 153
 - removing 201
 - settings 176
- jobs
 - formatted incorrectly 101
 - not printing, troubleshooting 98
 - private 67
 - proof-and-hold 66
 - Retrieve Job menu 158
 - stopped, troubleshooting 100
 - storing, memory requirements 66

K

- keys, control panel 11

L

- labels
 - fuser modes 170
 - printing 50
 - specifications 188
- landscape orientation
 - duplexing options 55
 - PCL commands 207
 - setting as default 168
- language, control panel 21, 96, 175
- languages, printer
 - included 5
 - settings 17, 174
 - switching, PCL commands 208
- laser safety statements 217
- LaserJet Utility, Macintosh 27
- last page, different paper 65
- legal paper, clipped margins 146
- letter paper, override A4 settings 166
- letterhead
 - fuser modes 170
 - printing on 52
- light print
 - setting toner density 171
 - troubleshooting 130
- lights, control panel 11
- Limit Check error 146
- line spacing, setting default 168
- lines, troubleshooting 131
- links
 - embedded Web server 72
 - HP Toolbox 77

- Linux driver support 24
- loading
 - custom-size paper 51
 - envelopes in tray 1 48
 - labels 50
 - paper for duplexing 54
 - preprinted paper 52
 - transparencies 51
 - trays 42
- locking
 - trays 39
- locking driver features 79
- loose toner
 - washing off 110
- loose toner, troubleshooting 132
- low toner 19, 174
- low toner message 90
- LPT error messages 139

M

- Macintosh
 - AppleTalk settings 176
 - background printing 141
 - default driver settings, changing 60
 - driver settings 58
 - drivers supported 24
 - drivers, troubleshooting 142
 - fonts, troubleshooting 141
 - HP LaserJet Utility 27
 - installing software 31
 - network installation 30
 - operating systems supported 23
 - PPDs 27
 - problems, troubleshooting 140
 - software included 27
 - support Web sites iv
 - uninstalling software 33
 - USB card, troubleshooting 141, 144
- maintenance
 - agreements 222
- maintenance agreements iv
- manual feed
 - printing to tray 1 40
 - settings 15, 166, 173
- manuals 2, 76
- map, menu 12, 85
- margins
 - envelopes 48, 187
 - legal paper, troubleshooting 146
 - PCL commands 207
- margins, settings 169
- media
 - A4 settings 166, 167
 - capacity 4
 - covers 65
 - curl, troubleshooting 104
 - custom-size 62, 166

- custom-size, printing 51
- default size, setting 166
- duplexing, sizes supported 54
- fuser modes 41
- HP, ordering 153
- loading 42
- manual feed 40
- PCL commands 206
- preprinted 52
- prepunched 52
- printing multiple pages on single sheet 62
- PS settings 16
- sizes supported 34, 35
- small 51
- small, settings 171
- source, selecting 64
- specifications 34, 185
- storing 185
- tray selection 14, 38, 39, 173
- tray settings 161
- troubleshooting 108
- troubleshooting trays 104
- usage page 160
- memory
 - configuration page 86
 - included 5
 - installing DIMMs 191
 - job-storage requirements 66
 - permanent resources 199
 - RAM disk settings 21, 175
 - upgrading 190
 - verifying installation 198
- menus, control panel
 - accessing 11
 - Configure Device 165
 - Diagnostics 178
 - I/O 175
 - Information 160
 - map, printing 12, 85
 - Paper Handling 161
 - Print Quality 168
 - Printing 165
 - Resets 176
 - Retrieve Job 158
 - System Setup 172
- mercury specifications 214
- messages
 - event log 178
 - event log, printing 86
 - settings 18, 174
 - Windows 139
- messages, troubleshooting 116
- Microsoft Windows. *See* Windows
- misformed characters, troubleshooting 133
- model number 86
- models 3
- multiple pages, printing on single sheet 62

N

- n-up printing 62
- narrow paper
 - printing on 51
- narrow paper settings 171
- Netscape Navigator, versions supported
 - embedded Web server 70
 - HP Toolbox 74
 - HP Web Jetadmin 73
- Networking guide 2
- Networking tab, embedded Web server 72
- networks
 - driver configuration 79
 - installing Macintosh software 30
 - installing Windows software 29
 - settings 176
 - troubleshooting printing 138
- non-HP print cartridges 89
- not responding, troubleshooting 106
- Novell NetWare settings; NetWare settings; IPX/SPX
 - setting 176
- number of copies, setting default 165

O

- on-site service agreements 222
- on/off switch, locating 8
- online customer support iii
- online Help 116
- online help
 - control panel 12
 - drivers 25
- OpenVMS drivers 24
- operating environment specifications 184
- operating systems supported 23, 24
- ordering
 - media, HP 153
 - part numbers for 152
- ordering supplies iii
- orientation
 - default, setting 168
- orientation, page
 - duplexing options 55
 - PCL commands 207
- OS/2 drivers 24
- Other links
 - embedded Web server 72
 - HP Toolbox 77
- out of toner 20, 175
- out of toner message 91
- output bins
 - settings 166
- output quality
 - troubleshooting 128
- override A4/letter 166
- ozone specifications 213

- P**
- packaging printer 224
 - page counts 86
 - page orientation
 - default, setting 168
 - duplexing options 55
 - PCL commands 207
 - pages per minute 4
 - pages per sheet 62
 - paper
 - A4 settings 166, 167
 - capacity 4
 - covers 65
 - curl, troubleshooting 104
 - curled 134
 - custom-size 62, 166
 - custom-size, printing 51
 - default size, setting 166
 - duplexer specifications 35
 - duplexing, sizes supported 54
 - fuser modes 41, 170
 - HP, ordering 153
 - loading 42
 - manual feed 40
 - PCL commands 206
 - preprinted 52
 - prepunched 52
 - printing multiple pages on single sheet 62
 - PS settings 16
 - sizes supported 34, 35
 - small 51
 - small, settings 171
 - source, selecting 64
 - specifications 34, 185
 - storing 185
 - tray selection 14, 38, 39, 173
 - tray settings 161
 - troubleshooting 108
 - troubleshooting trays 104
 - usage page 160
 - wrinkled 135
 - paper handling accessories
 - troubleshooting 102
 - Paper Handling menu 161
 - paper path
 - test 178
 - parallel cable, part number 153
 - parallel cables
 - troubleshooting 98
 - parallel communications, settings 176
 - parallel port
 - locating 9
 - type included 5
 - parallel ports
 - not supported for Macintosh 31
 - part numbers
 - cables 153
 - EIO cards 153
 - media, HP 153
 - parts
 - ordering 150
 - PCL commands
 - common 206
 - escape sequences 204, 205
 - font selection 205, 209
 - syntax 204
 - PCL drivers
 - features 25
 - operating systems supported 24
 - See *also* drivers
 - PCL font list, printing 87, 160
 - PCL, setting as printer language 17, 174
 - PDEs, Macintosh 27
 - percent of normal size 64
 - permanent resources 199
 - personalities
 - included 5
 - settings 17, 174
 - switching, PCL commands 208
 - viewing installed 86
 - phone numbers
 - ordering supplies iii
 - service agreements iv
 - support iii
 - PJL (Printer Job Language) commands 203
 - platforms supported 23, 24
 - portrait orientation
 - duplexing options 55
 - PCL commands 207
 - setting as default 168
 - ports
 - included 5
 - locating 9
 - LPT error messages 139
 - troubleshooting Macintosh 141, 144
 - postcards
 - printing 51
 - PostScript error pages
 - settings 167
 - troubleshooting 98
 - PostScript Printer Description (PPD) files
 - included 27
 - troubleshooting 140
 - PostScript, setting as printer language 17, 174
 - power
 - consumption 213
 - specifications 182
 - power consumption 6
 - power switch, locating 8

- PPDs
 - included 27
 - troubleshooting 140
 - preconfiguration, driver 79
 - preprinted paper
 - fuser modes 170
 - printing on 52
 - prepunched paper
 - fuser modes 170
 - printing on 52
 - print cartridges
 - cleaning near 92
 - density settings 171
 - EconoMode 171
 - Economode 63
 - features 6
 - life expectancy 90
 - low 19, 174
 - low toner message 90
 - non-HP 89
 - ordering iii
 - out 20, 175
 - out of toner message 91
 - paper jams, clearing 110
 - recycling 213
 - status information 89
 - status, viewing with embedded Web server 71
 - status, viewing with HP Toolbox 75
 - storing 89
 - supplies status page 87
 - supply level, checking 90
 - print jobs
 - formatted incorrectly 101
 - not printing, troubleshooting 98
 - retention 172
 - stopped, troubleshooting 100
 - print quality
 - settings 63, 170
 - troubleshooting 128
 - Print Quality menu 168
 - print quality, troubleshooting
 - repetitive images 137
 - printer commands
 - escape sequences 204, 205
 - font selection 205, 209
 - PCL 206
 - syntax 204
 - types of 203
 - Printer Dialog Extensions (PDEs), Macintosh 27
 - printer drivers. *See* drivers
 - printer language
 - switching, PCL commands 208
 - printer languages
 - included 5
 - printerlanguages
 - viewing installed 86
 - Printing menu 165
 - private jobs 67
 - processor speed 5
 - proof-and-hold jobs 66
 - ProRes 4, 63
 - PS Defer Media setting 16
 - PS driver
 - features 25
 - operating system supported 24
 - See also* drivers
 - PS error pages
 - settings 167
 - troubleshooting 98
 - PS font list, printing 87, 160
 - PS, setting as printer language 17, 174
 - punched paper
 - fuser modes 170
 - printing on 52
- Q**
- quality
 - troubleshooting 128
 - quick copy jobs
 - settings 172
- R**
- RAM disk settings 21, 175
 - Range Check, troubleshooting 147
 - Ready light 11
 - rear output bin
 - locating 8
 - printing to 47
 - settings 166
 - recovery, jam 20, 175
 - recycling
 - plastics 213
 - print cartridges 213
 - reduce/enlarge options 64
 - reference materials 2
 - registration settings 169
 - regulatory statements
 - Canadian DOC statement 217
 - declaration of conformity 216
 - FCC 212
 - Finnish laser statement 218
 - Japanese VCCI statement 217
 - Korean EMI statement 217
 - laser safety 217
 - removing software
 - HP Toolbox 78
 - Macintosh 33
 - Windows 33
 - repacking printer 224
 - repeating defects, troubleshooting; defects, repeating 133
 - repetitive defects
 - images 137
 - Resets menu 176

- resizing documents 64
- resolution
 - features 4
 - settings 63
 - troubleshooting quality 128
- Resolution Enhancement technology (REt) 171
- resolution, settings 170
- resource saving 199
- restoring default settings 176
- REt (Resolution Enhancement technology) 171
- retention, job
 - memory requirements 66
 - private 67
 - proof-and-hold 66
 - Retrieve Job menu 158
 - settings 172
- Retrieve Job menu 158
- right-side panel, locating 8
- rough paper
 - fuser modes 170

S

- saving resources, memory 199
- scaling documents 64
- security
 - settings 86
- serial cables, troubleshooting 98
- serial number 86
- service
 - agreements iv, 222
 - HP Express Exchange 223
 - HP-authorized dealers iv
 - information form 225
 - repacking printer 224
- settings
 - configuration page, printing 85
 - control panel 13
 - defaults, changing 58
 - driver 58
 - driver configuration 79
 - drivers 25
 - locking 79
 - restoring defaults 176
- Settings tab, embedded Web server 71
- shipping printer 224
- silent installation, driver 80
- SIMMs, incompatibility 190
- size, paper
 - 250-sheet tray specifications 35
 - 500-sheet tray specifications 35
 - duplexer specifications 35
 - printing small or custom 51
 - tray 1 specifications 34
 - tray selection 38, 39
- Size/type prompt setting 16
- skewed pages 134

- Sleep mode
 - delay, setting 16, 173
 - power specifications 182
 - turning on or off 17
- sleep mode
 - turning on or off 177
- slow printing, troubleshooting 100, 105
- small paper
 - printing on 51
- small paper mode 171
- smeared toner, troubleshooting 132
- software
 - downloading iii
 - HP Toolbox 74
 - installing Macintosh 31
 - installing on Windows 28
 - installing using New Hardware Found wizard 32
 - Linux 24
 - Macintosh iv
 - macintosh 27
 - Macintosh, included 27
 - network installation, Macintosh 30
 - network installation, Windows 29
 - operating systems supported 23
 - settings 13
 - uninstalling from Macintosh 33
 - uninstalling from Windows 33
- source, paper 64
- specifications
 - accessibility 7
 - electrical 182
 - energy use 6
 - envelopes 186
 - labels 188
 - media 34
 - memory 5
 - operating environment 184
 - paper 185
 - printer features 4
 - speed 4
 - transparencies 188
 - trays 4
- specks, troubleshooting 130, 136
- speed
 - data transmission settings 176
 - processor 5
 - resolution settings 170
 - specifications 4
 - troubleshooting 100, 105
- Spool32 errors 139
- spots, troubleshooting 130, 136
- status
 - alerts, e-mail 81
 - e-mail alerts 76
 - Information tab, embedded Web server 71
 - lights, control panel 11

- supplies 87
- supplies page, printing 160
- viewing with HP Toolbox 75
- Status tab, HP Toolbox 75
- stopped printing, troubleshooting 100
- stopping print jobs 57
- storage, job
 - memory requirements 66
 - private 67
 - proof-and-hold 66
 - Retrieve Job menu 158
 - settings 172
- storing
 - envelopes 187
 - paper 185
- storing print cartridges 89
- straight-through paper path 47
- supplies
 - non-HP 89
 - ordering iii, 150
 - recycling 213
 - status page 87
 - status page, printing 160
 - status, viewing with embedded Web server 71
 - status, viewing with HP Toolbox 75
- supply level, print cartridges 90
- support
 - embedded Web server links 72
 - HP Express Exchange 223
 - HP Instant Support Professional Edition (ISPE) iii
 - Macintosh iv
 - maintenance agreements 222
 - online iii
 - repacking printer 224
 - service dealers iv
 - service information form 225
 - telephone iii
- SupportPack, HP 222
- symbol sets 168
- syntax, PCL commands 204
- system requirements
 - drivers 24
 - embedded Web server 70
 - HP Toolbox 74
 - HP Web Jetadmin 73
 - printing software 23
- System Setup menu 172

T

- technical support
 - embedded Web server links 72
 - HP Express Exchange 223
 - HP Instant Support Professional Edition (ISPE) iii
 - Macintosh iv
 - maintenance agreements 222
 - online iii
 - repacking printer 224
- service dealers iv
- service information form 225
- telephone iii
- telephone numbers
 - ordering supplies iii
 - service agreements iv
 - support iii
- temperature requirements 184
- tests 178
- text quality, troubleshooting 133, 136
- text, troubleshooting
 - garbled 106
- three-hole punched paper
 - fuser modes 170
 - printing on 52
- time settings 172
- time, setting 82
- timeout settings
 - held jobs 172
 - I/O 176
 - Sleep mode 16, 173
- tire tracks, troubleshooting 135
- toner
 - density setting 171
 - EconoMode 171
 - low 19, 174
 - out of 20, 175
 - output quality, troubleshooting 132
 - washing off 110
- toner cartridges. *See* print cartridges
- toner, saving 63
- Toolbox
 - Alerts tab 76
 - Device Settings window 76
 - Documentation tab 76
 - features 74
 - links 77
 - opening 75
 - Status tab 75
 - Troubleshooting tab 75
 - uninstalling 78
- top output bin
 - locating 8
 - printing to 47
 - settings 166
- transparencies
 - fuser modes 170
 - HP, ordering 156
 - printing 51
 - specifications 188
- tray 1
 - custom-size settings 166
 - duplexing 54
 - duplexing manually 56
 - envelopes, printing 48
 - loading 42
 - locating 8

- locking 39
- manual feed 40
- manual feed settings 15, 166
- printing from 14, 38, 173
- settings 161
- troubleshooting 102
- trays
 - capacities 4
 - custom-size settings 166
 - duplexing 54
 - duplexing manually 56
 - included 3
 - jams, clearing 112
 - loading paper 42
 - locating 8
 - locking 39
 - manual feed 40
 - manual feed settings 166
 - paper path test 178
 - PCL commands 206
 - registration settings 169
 - selecting 14, 38, 64, 173
 - settings 161
 - settings, viewing 86
 - troubleshooting 102, 104
- troubleshooting
 - blank pages 105
 - blurred print 136
 - cables 98
 - configuration page printing 97
 - control panel display 96
 - curled paper 104, 134
 - dropouts 131
 - duplexing 105
 - EPS files 141, 144
 - error messages 116
 - event log 178
 - fonts 146
 - gray background 131
 - information pages 85
 - jams, causes of 110
 - jams, clearing print-cartridge area 110
 - jams, duplexer 114
 - jams, first sheet 104
 - jams, locations 110
 - jams, output areas 113
 - jams, trays 112
 - legal paper 146
 - light print 130
 - Limit Check error 146
 - lines 131, 135
 - Macintosh problems 140
 - network printing 138
 - online Help 116
 - output quality 128
 - paper 108
 - PostScript problems 146
 - printing 98, 100, 106
 - PS errors 98
 - Range Check 147
 - repeating defects 133
 - repetitive images 137
 - skewed pages 134
 - slow printing 100, 105
 - smeared toner 132
 - specks 130
 - text 106
 - text quality 133, 136
 - tire tracks 135
 - tray selection 102
 - trays 104
 - VM error 147
 - white spots 136
 - Windows error messages 139
 - wrinkled paper 135
- Troubleshooting tab, HP Toolbox 75
- two-sided printing
 - binding edge settings 166
 - layout options 55
 - loading paper 54
 - manual 56
 - paper sizes supported 54
 - troubleshooting 105
 - usage page 160
 - using duplexer 55

U

- uninstalling
 - HP Toolbox 78
- UNIX
 - carriage return settings 168
 - Model Scripts 24
- upgrading memory 190
- usage page 160
- USB cable, part number 153
- USB port
 - locating 9
 - troubleshooting Macintosh 141, 144
 - type included 5
- user guide 76

V

- vertical spacing, setting default 168
- VM error 147
- voltage specifications 182

W

- warnings setting 18, 174
- warranty
 - extended iv, 222
 - print cartridge 221
 - product 219
- washing off toner 110
- watermarks, printing 61

- wave, troubleshooting 104
- wavy paper, troubleshooting 134
- Web browser requirements
 - embedded Web server 70
 - HP Toolbox 74
- Web Jetadmin
 - browsers supported 73
 - downloading 73
 - driver configuration 79
 - e-mail alerts 81
- Web sites
 - customer support iii
 - downloading software iii
 - HP Web Jetadmin, downloading 73
 - Macintosh support iv
 - ordering supplies iii
 - paper specifications 185
 - service agreements iv
 - UNIX and Linux drivers 24
- websites
 - anticounterfeit 89
- weight, paper
 - printing on heavy media 51
- weight, paper specifications
 - 250-sheet tray 35
 - 500-sheet tray 35
 - duplexer 35
 - tray 1 34
- white lines or spots, troubleshooting; lines,
 - troubleshooting 135
- Wide A4 settings 167
- Windows
 - default driver settings, changing 58
 - driver settings 58
 - drivers supported 24
 - error messages, troubleshooting 139
 - installing software 28
 - installing using New Hardware Found wizard 32
 - network installation 29
 - uninstalling software 33
 - versions supported 23
- wrinkled paper, troubleshooting 135
- wrong printer, sending to 140



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